A GUIDE BOOK ON INTELLECTUAL PROPERTY ISSUES TO BE CONSIDERED WHILE TRANSFERRING RENEWABLE ENERGY TECHNOLOGIES

APCTT-UNESCAP

Asian and Pacific Centre for Transfer of Technology
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Commission for Asia and the Pacific (ESCAP)

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List of Abbreviations

APCTT	Asia and Pacific Centre for Transfer of Technology
GI	Geographical Indications
IP	Intellectual Property
IPR	Intellectual Property Rights
JV	Joint Venture
JVA	Joint venture agreement
PV	Photovoltaic
RERI	Renewable Energy Research Institute
RETs	Renewable Energy Technologies
R&D	Research and Development
SPV	Solar Photo-voltaic
TRIPS	Trade Related Aspects of Intellectual Property Rights
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

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1.0 Introduction

The pace of developments in renewable energy technologies (RET) is fast changing the face of global economic and energy relationships among nations, particularly developing countries, emphasizing the need to strengthen their capacity to utilize renewable energy resources to meet their energy needs. There may be several ways of enhancing such a capacity, which may include strengthening national capability for research and development, developing requisite technologies and transferring them to companies or companies acquiring technologies from other companies. There is a spurt in investment in research and development, both in developing and developed countries, in the field of alternative energy R&D in all its aspects, viz. wind, solar, hydro-electric, marine, geothermal, biomass or biodiesel, and hydrogen. This has lead to several knowledge based developments in the Renewable Energy Technologies that have enhanced the share of proprietary inventions, designs or other tradeable intellectual property in low or high technology goods or products. These developments may include the photovoltaic technologies utilizing solar energy into electricity and their applications, using wind turbines converting wind kinetic energy into electrical power, harnessing of water energy for electricity and other uses, and applications of technologies associated with developments in biofuels, biomass, geothermal sources of renewable energy.

Each nation aspires to acquire renewable energy technologies to secure energy independence. The main concern is to have cost-effective technologies, which could ultimately make alternative energy a viable large-scale commercial solution. Even at different stages of the evolution of technological trajectories, several such technologies have found commercial applications. The commercial exploitation of the emerging results of research by companies, jointly pursuing new directions of research and transfer of technologies within companies have been common practices in the utilization of RETs. The intellectual property (IP) system provides much needed regulatory framework for the conduct of R&D, where most technologies get developed, commercially transferred or transacted amongst companies to meet competitive challenges in commerce and business. The stakeholders in generation of technologies, namely, universities, research institutions in the government, private research entities, and the companies have limited understanding about the potential of intellectual property rights in promotion of their business interests. Many developed and developing countries have launched campaign to create awareness about intellectual property rights in their countries. What is meant by intellectual property? What are intellectual property rights? The first set of issues concern the needs of protection of new inventions and results of research. How to recognize when a research has reached a stage where the results need to be protected? How to protect such results? How the IP rights are to be owned amongst team of inventors, research institutions, the grant giving government organisations, or industry sponsors of research?

In addition to intellectual property rights, there are several issues that may arise while considering the renewable energy technology transfer and may include factors such as the complexity and stage of development of technology, the actual needs of the

recipient of the technology, the technological capacity of the transferee and ability to use and/or adapt the technology being purchased, the relevance, availability and cost effectiveness of alternative technologies, the price to be paid by the recipient, negotiating power of both parties, and issues concerning product liability, indemnity, warranty, etc.. However, the focus of this report is not on such factors but mainly on IPR issues during transfer of renewable energy technologies. The later may take varied forms in the respective contexts of transfer from a company to company or transfer from R&D to a company. How to understand the IP embedded in a technology? How to ensure its technical feasibility or operational provenness and applicability in the operational context? The operability has to be ensured first while negotiating the transfer of technology and later during the implementation phase. Here, the intellectual property issues involve the defining the technical details of the intellectual property, and assessing its ownerships. How to add value in existing intellectual property? How to transact in intellectual property? How to verify authenticity of the technology supplier? How to put value to intellectual property?

In the context of transfer technology from R&D to company, these issues may primarily concern that the technology does not infringe any other's intellectual property and has been developed using technological information that is freely available. In case, it has utilized certain information that is protected by others, the companies have to look for appropriate strategy for acquiring those rights. In case the technology needs further development through collaborative research, issues will relate to sharing of intellectual property during transfer and development of technology. These are the kinds of questions, the answers to which must be made available to stakeholders in a simplified form.

This report makes an attempt to explore some of these questions in the context of transfer of renewable energy technologies. The report, particularly, provides a practical guidance on the intellectual property issues to be considered while transferring renewable energy technologies from (a) a company to company, and (b) a research and development (R&D) institution to a company. The guide book also gives practical guidelines such as pricing strategies and model technology transfer agreements, for the use of the buyers and sellers of intellectual property.

2.0 Understanding Intellectual Property

2.1 What is Intellectual Property (IP)

Intellectual property refers to creations of the mind. It is similar to private properties consisting of movable or immovable things like a piece of land or gold or things like mobile, digital camera, television etc. wherein the proprietor or owner may use his property as he wishes and nobody else could lawfully use his property without his permission. It includes intangible creations like inventions, literary and artistic works, photographs or designs and other intellectual creations used in commerce.

The intellectual property rights refer to the rights given to the creators to prevent others from using their inventions, designs or other creations — and to use that right to negotiate payment in return for others using them. Intellectual property rights, in general, give the creator an exclusive right over the use of his/her creation for a limited period of time, while in some cases such rights may be extendable perpetually.

2.2 The Guiding Principles

- The intellectual property is protected and governed by appropriate national legislations.
- The rights are the legal rights granted by the government of a nation in exchange of the public disclosure of the inventions.
- The grant of rights is intended to encourage the creators and the authors in their creative pursuits and also to enable them to recuperate their expenditure in creating new knowledge and to make profit [1].

2.3 Significance of IP

The economic policies of nations have been changing, over the years, by liberalizing and bringing in economic reforms towards more competitive economies. The thrust of these changes is to bring companies at the forefront of driving the economic development. This has required them to strengthen their technological capacities as well as realize the significance of intellectual property rights in their business. The emergence of new technologies e.g. biotechnology, information and communication technologies, new materials, and the nanotechnologies present new challenges where new laws and concepts are needed for the protection of intellectual property at least for a limited period. The companies that made investments in R&D and technology development generally prefer to transact business in economies where they felt secure on the protection of their technologies so as to enable them to recover the investments made in R&D. These developments called for a uniform intellectual property regime across nations.

The extent of protection and enforcement of intellectual rights varied widely around the world. In 1995, with the setting up of the World Trade Organization (WTO), the agreement on Trade related aspects of Intellectual Property Rights (TRIPS) came into effect. The Agreement, for the first time, established the minimum standards of protection that each government had to give to the intellectual property within its territory, and, thus, was the first step in narrowing the gaps in the way these rights were

protected. The WTO agreements are based on the idea of reciprocal and mutually advantageous economic benefits through trade liberalization. WTO also provided for a dispute settlement mechanism, which allowed retaliation for non-compliance of WTO agreements in same or across sectors. Thus, for non-compliance of any provisions of TRIPS, a complainant may seek to suspend concessions or other obligations under another WTO agreement [2]. The importance of IPR, thus, gathered momentum. The IP laws of nations changed in view of their commitments under TRIPS. With in the ambit of TRIPS, the laws relating to intellectual property may, however, still vary from country to country. ((Full text of the national IP laws can be accessed from the database—Collection of Laws for Electronic Access (CLEA) database, of the World Intellectual Property Organisation at http://www.wipo.int/clea/en/); the website at http://www.wipo.int/directory/en/urls.jsp, gives information on the web sites and addresses of the national IP offices).

Further, the new advances in renewable energy, energy efficiency, and emission control/reduction, and other clean technologies are constantly evolving. The business for these technologies also continues to increase, highlighting the significance of IP and developing an intellectual property strategy for companies and the R&D organisagions.

2.4 Basic Concepts of intellectual property (including examples from renewable energy technologies)

Historically, the intellectual property rights are divided into (i) industrial property, (ii) copyrights and related rights. More recently, new dimensions have been added, for example, protection of geographical indications, lay out designs of integrated circuits, and plant variety.

(i) Industrial property.

The industrial property is protected primarily to stimulate innovation, design and the creation of technology. In this category, there are inventions (protected by patents), industrial designs, trademarks and trade secrets or know-how.

(ii) Copyright and related rights

The rights of authors of literary and artistic works such as books and other writings, musical compositions, paintings, sculpture, computer programs are protected under copyright. The related rights, sometimes referred to as “neighbouring” rights, are the rights of performers (e.g. actors, singers and musicians), producers of phonograms (sound recordings) and broadcasting organizations, that are also protected under the copyright and related rights.

TRIPS agreement included the following main elements of intellectual property:

- Patents
- Industrial designs
- Trademarks, including service marks
- Undisclosed information, including trade secrets

- Copyright and related rights
- Geographical indications
- Layout-designs (topographies) of integrated circuits

The basic concept of each of these elements of intellectual property rights can be understood as below:

2.4.1 Patents

A Patent is a right granted for an invention, a product or a process if it is new, involves an inventive step (i.e. it is not obvious) and is capable of industrial application i.e. in general, it provides a new way of doing something, or offers a new technical solution to a problem [3]. New or Novel means that it does not form part of the prior art. The prior art refers to all the relevant technical knowledge available to the public anywhere in the world prior to the first filing date of the relevant patent application. Inventive step means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both that makes the invention not obvious to a person skilled in the art. Capable of industrial application means that the invention is capable of being made or used in an industry. An invention cannot be a mere theoretical phenomenon; it must be useful and provide some practical benefit.

The rights provide the exclusive privilege to the patentee to prevent others from practicing i.e. making, selling, offering for sale, importing, distributing and using the inventions (or authorizing others to do so) in consideration of his disclosure of the invention covered by the patent [4]. The rights accrue on the basis of filing a patent application with the national patent office, which in turn examines the invention and if found satisfactory on procedures and criteria of novelty, non-obviousness and industrial utility, grants a patent. The grant of a patent right is sovereign national right. The patent rights are only applicable in a country where protection has been granted. Therefore, the patent application has to be filed in several countries, where protection is desired.

According to the TRIPS agreement, the patent protection must be available for inventions for at least 20 years [5]. Patent protection must be available for both products and processes, in almost all fields of technology.

Inventions not patentable

Governments can refuse to issue a patent for an invention if its commercial exploitation is prohibited for reasons of public order or morality. They can also exclude diagnostic, therapeutic and surgical methods, plants and animals (other than microorganisms), and biological processes for the production of plants or animals (other than microbiological processes). Thus, each nation provides for inventions which are not patentable inventions as per its national laws.

The inventions that are not patentable may, for example in Indian case, include inventions which are frivolous or against natural laws, injurious to public morality, injurious to public health of human beings, plants and animals, discovery of scientific principles, discovery of a new property of a known substance; mathematical or business methods or a computer program per se or algorithms or rule or method of performing

mental act or method of playing game; inventions in the area of traditional knowledge or relating to atomic energy and invention prejudicial to the interest of security of the nation [6].

A patent application must disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the specific technical field. For disclosure for patents involving microorganisms, microorganism is required to be deposited at a recognized depositary institution and the depository number so assigned has to be mentioned in the patent application.

In some countries a special, less powerful kind of patent called a "utility model" (or "petty patent") is also available. Utility models usually offer less effective protection for a shorter period of time. Most countries require inventions to be new in order for them to receive utility model protection.

A mobile phone for example may be the result of series of inventions like high tech glass, electronic components and other devices that may find protection under patents. However, it is not essential that for getting a patent, the inventions should be of breakthrough nature or of very high scientific quality. The minor modifications are patentable. For example, inventions relating to a paper clip, self-adhesive tape, or a disposable blood bag are patentable. There are several inventions and patents taking place in the area of renewable energy technologies as well.

Examples of patentable inventions in renewable energy technology:

A US patent no. 7,585,568 was granted on September 8, 2009 on “Solar selective coating having higher thermal stability useful for harnessing solar energy and a process for the preparation thereof”, to a team of inventors, namely, Barshilia; Harish Chandra, Grips; Vatika Krishnamurthy William, and Rajam; Karaikudi Sankaranarayana from India [7]. The patent was assigned to the Indian Council of Scientific and Industrial Research.

A US patent no.6,403,981 B1 was issued on June 11, 2002 to Dusit Kruangam of Chulalongkorn University, Thailand for his invention of “Amorphous Semiconductor Photocoupler”. This invention is for a photocoupler comprising a light emitting device and a light detecting device both of which are made of amorphous semiconductors. The amorphous semiconductor thin films can be produced at low cost and on any area, the photocoupler made of these materials can be produced at a lower cost as compared with a conventional crystalline photocoupler, and can be produced at any size [8].

In the area of wind energy, a US patent no. 7,550,863 was issued on June 23, 2009 for an invention titled ‘Wind turbine’ to Versteegh, Cornelus Johannes Antonius of Netherlands and assigned to Greenergy India Private Ltd from India. The invention concerns a wind turbine comprising a vertical tower with a yaw bearing, a nacelle on top of the yaw bearing, a hub with blades rotatable around a more or less horizontal rotation axis. The nacelle has a generator and a control room. The generator comprises a rotor, and a stator, and the rotor shaft. In accordance with the invention the rotor shaft is hollow and the hollow hub is accessible from the control room through the hollow rotor shaft [9].

The first page of the grant of US patent no.7,314,287 B2 to Quanwei Fan of China issued on January 1, 2008 and assigned to Guangzhou Fapu Electronic & Technology Co. Ltd., China is given below. The invention related to candle lamps having solar illumination devices [10].

US007314287B2

(12) **United States Patent**
Fan

(10) **Patent No.: US 7,314,287 B2**
(45) **Date of Patent: Jan. 1, 2008**

(54) **CANDLE LAMPS HAVING SOLAR ILLUMINATING DEVICES**

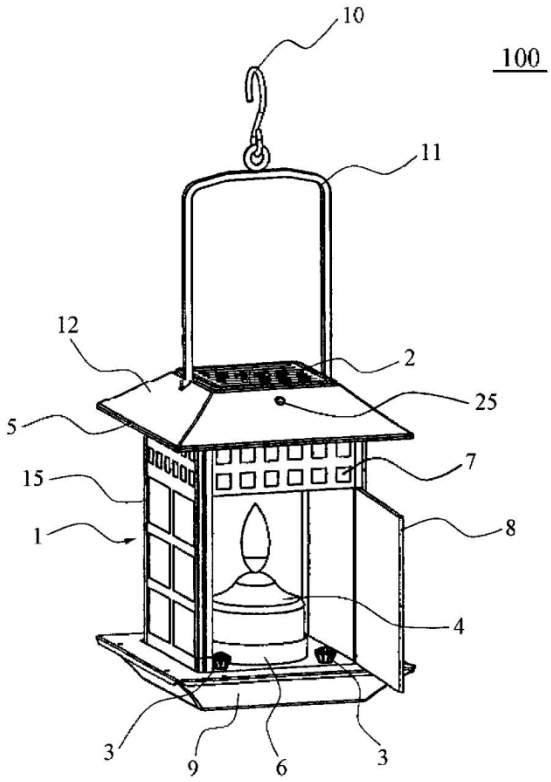
(75) Inventor: **Quanwei Fan**, Guangzhou (CN)

(73) Assignee: **Guangzhou Fapu Electronic & Technology Co., Ltd.**, Guangzhou, Guangdong Province (CN)

ABSTRACT

Disclosed is a candle lamp a base which comprises a base; a lampshade releasably mounted on the base; a candle holder disposed within the lampshade to hold a candle; a lid disposed above the lampshade; at least one solar power supplier arranged at an outer surface of the lid; and at least one illuminant electrically communicated with the solar power supplier.

11 Claims, 2 Drawing Sheets



Another US patent no 6,632,405 B2 was issued to Edgardo R.Lua from Philipines who himself is the owner of the invention. The patent was issued on October 14, 2003 for the invention of “Solar power battery air freshener with oscillating fan” [11]. The solar power battery utilizes energy derived from natural sunlight or light emitted from a regular light fixture in order to provide power to oscillating device wherein a fan is connected. The front page of the patent document giving details of the invention is given below:

US006632405B2

(12) **United States Patent**
Lua

(10) **Patent No.: US 6,632,405 B2**
(45) **Date of Patent: Oct. 14, 2003**

(54) **SOLAR-POWER BATTERY AIR FRESHENER WITH OSCILLATING FAN**

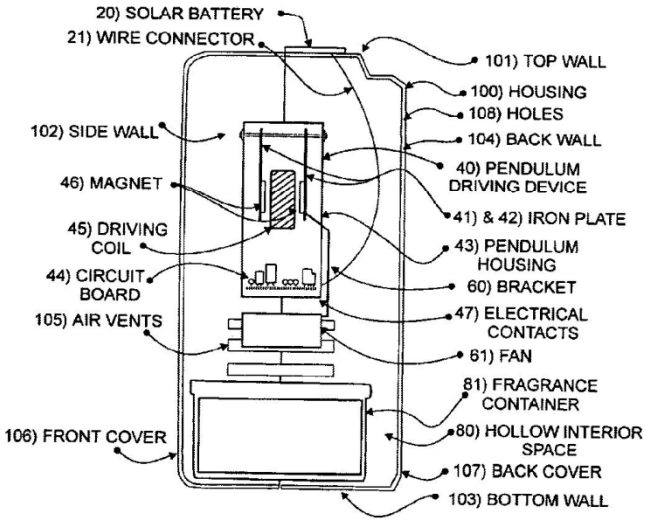
(75) Inventor: **Edgardo R. Lua**, 245 Banawe St., cor Sgt. Rivera, Quezon City (PH)

(73) Assignee: **Edgardo R. Lua**, Quezon (PH)

ABSTRACT

A solar-power battery air freshener includes a housing **(100)** with an oscillating fan **(61)** for emitting a fragrance to the surrounding environment. A solar-power battery **(20)** utilizes energy derived from natural sunlight or light emitted from a regular light fixture in order to provide power to an oscillating device wherein a fan **(61)** is connected. The oscillating device includes a circuit **(44)**, a coil **(45)**, and magnets **(46)** connected to vertical iron plates **(41, 42)**. A bracket **(60)** is attached to the iron plate **(41)** in such a manner that a fan **(61)** can be attached to the bracket. A fragrance container **(81)** is located directly below the fan **(61)**. The oscillating movement of the fan **(61)** disperses the fragrance emitted from the fragrance container **(81)** out of the housing through air vents **(105)** and into the room or vehicle being freshened.

1 Claim, 3 Drawing Sheets



SIDEVIEW

Solar-Power Battery Air Freshener with Oscillating Fan

2.4.2 Industrial Design

Innovations relating industrial designs are integral part of consumer culture and competition to draw consumer's attention. The new and original design gives the product a Unique Selling Point (USP). Therefore, an adequate protection is essential to an original design and the embedded creativity therein. Design management is an important source of corporate competitiveness [12].

Design" means only the features of shape, configuration, pattern, ornament or composition of lines or colours applied to any article that appeal to and are judged solely by the eye. The features can be in two or three dimensional or in both forms and may be applied by any industrial process, manual, mechanical or chemical, separate or combined. The "Article" means any article of manufacture and any substance, artificial, or partly artificial and partly natural and includes any part of an article capable of being made and sold separately [13]. It means the features applied to an article and not the article itself. The design is the result of creativity of the creators.

The functional features of an object are not considered while giving protection to a design. A design can be registered by filing an application with national IP office along with drawings, and / or photographs of the design. In order to qualify for registration, the

design must be new or original, must not have been previously published anywhere in the world, and should be significantly distinguishable from known designs or combination of known designs. It should not comprise or contain scandalous or obscene matter. Under the TRIPS Agreement, industrial designs are to be protected for at least 10 years. Owners of protected designs will be able to prevent all others from producing, importing, selling or distributing products having an identical appearance or a fraudulent or obvious imitation of the registered design. The intellectual property in design is an asset and can be licensed.

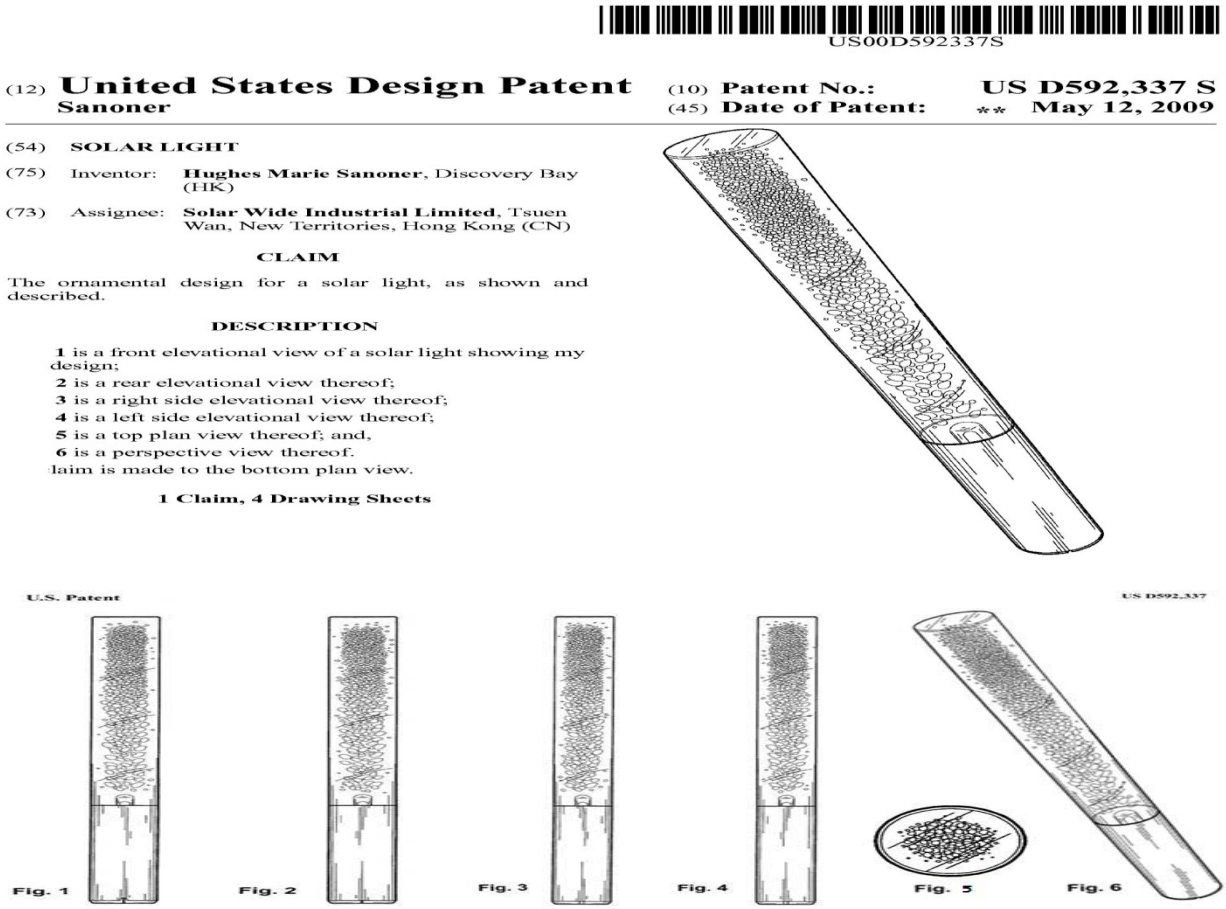
To cite some examples, take the case of front view of a television as below. Its shape and presentability is a matter of aesthetics and a matter of registration and protection under the design act. For registration, a statement would have to be made on the novelty. The novelty of the design of this TV resides in the shape and configuration of the “Television” as illustrated or the specific portions of its shape as illustrated. In another example, Sugar cubes of noticeable shape and configuration were allowed for registration as new design [14].

Mineral water bottles from different companies indicate the variety of designs.

Sources: www.alibab.com; www.bisleri.com

Novel designs in renewable energy technologies:

Unlike in many countries that provide for the registration of new and novel design, the US grants patents to designs. A US design patent no. D 592,337 was granted to an inventor from Hong Knog, China relating to an invention titled “Solar light” on May 12,2009 [15]. The salient features of the front page and the images of the patent are given below:



US00D592337S

(12) **United States Design Patent**
Sanoner

(10) **Patent No.:** **US D592,337 S**
(45) **Date of Patent:** ** **May 12, 2009**

(54) **SOLAR LIGHT**

(75) Inventor: **Hughes Marie Sanoner**, Discovery Bay (HK)

(73) Assignee: **Solar Wide Industrial Limited**, Tsuen Wan, New Territories, Hong Kong (CN)

CLAIM

The ornamental design for a solar light, as shown and described.

DESCRIPTION

1 is a front elevational view of a solar light showing my design;
2 is a rear elevational view thereof;
3 is a right side elevational view thereof;
4 is a left side elevational view thereof;
5 is a top plan view thereof; and,
6 is a perspective view thereof.
laim is made to the bottom plan view.

1 Claim, 4 Drawing Sheets

U.S. Patent US D592,337

Fig. 1 Fig. 2 Fig. 3 Fig. 4 Fig. 5 Fig. 6

Another US design patent no. D602,861 S was issued on October 27, 2009 to inventor Patrick H. Talab of US [16]. The patent related to a wind turbine whose specific features are described in the front page of the patent and subsequent images given below.


US00D602861S

(12) **United States Design Patent**
Talab

(10) **Patent No.:** **US D602,861 S**
(45) **Date of Patent:** ** **Oct. 27, 2009**

(54) **WIND TURBINE**

(76) Inventor: **Patrick H. Talab**, 4051 Haggerty Rd., West Bloomfield, MI (US) 48323

CLAIM

The ornamental design for a wind turbine, as shown and described.

DESCRIPTION

FIG. **1** is a front perspective view of the wind turbine of the present invention, with the pole broken away to indicate indeterminate length;

FIG. **2** is a side elevational view of the wind turbine of FIG. **1**, with the pole broken away to indicate indeterminate length;

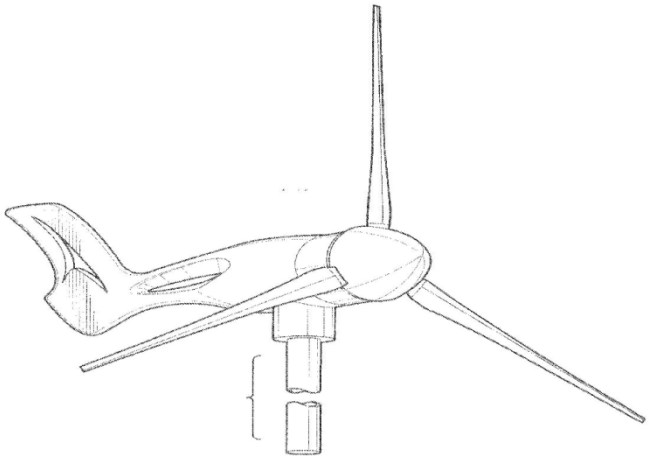
FIG. **3** is a front elevational view of the wind turbine of FIG. **1**, with the pole broken away to indicate indeterminate length;

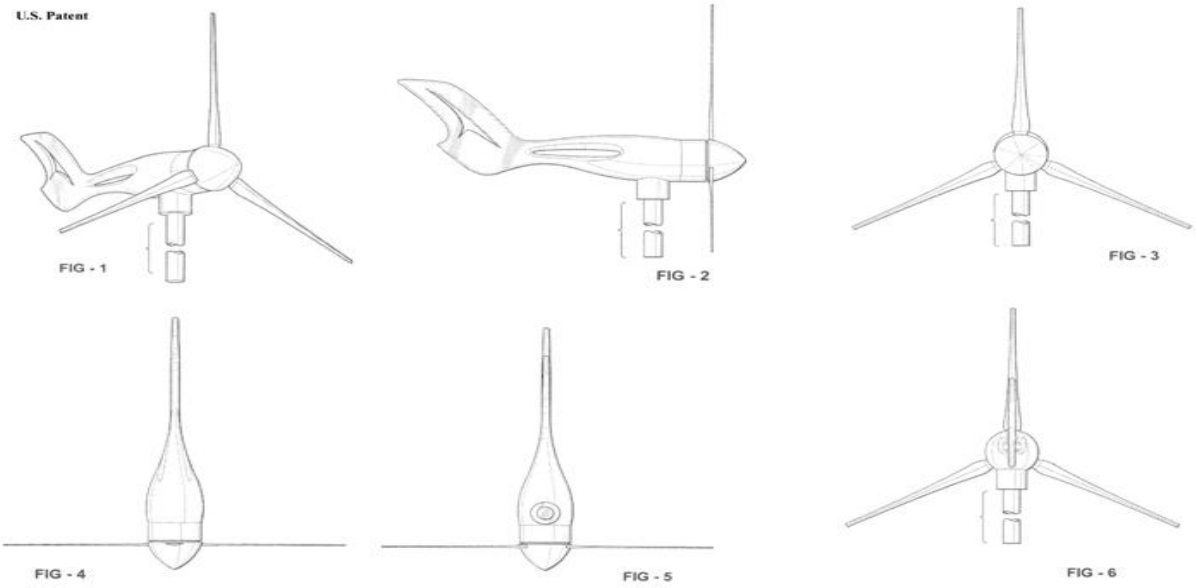
FIG. **4** is a top plan view of the wind turbine of FIG. **1**;

FIG. **5** is a bottom plan view of the wind turbine of FIG. **1**; and,

FIG. **6** is a rear elevational view of the wind turbine of FIG. **1**, with the pole broken away to indicate indeterminate length.

1 Claim, 6 Drawing Sheets





2.4.3 Trademarks, including service marks

The trademark is a means of communication between manufacturers to consumers. It means a mark capable of being represented graphically, capable of distinguishing the goods or services of one person from those of others, and may include shape of goods, their packaging and combination of colours. It indicates the origin of a product e.g “Brooke Bond” – tea originating from a Company – manufacturing tea and marketing under that mark. The quality of tea sold under mark such as “Brooke Bond”, which is different from tea labeled with mark “Taj Mahal”. The trade mark “Sony” associated with electronic goods, signifies a particular quality, which distinguishes it from products of Sony’s competitors, e.g. Samsung. It creates an image of a product in the minds of public. The mark “M” stands for food items of the American fast food chain

MACDONALD, which instantly links with the reputation for food items – offered for sale – in the market [17].

A paradigm shift is taking place in many developing countries with respect to the choice and use of marks. For example, in India, the companies earlier used marks by just picking up either from ordinary parlance or based on deities e.g. Hamdard, Maruti Suzuki, Bajaj, etc.. The companies are now shifting to new brands like Provogue, Titan, AirTel, Sify, Infosys, etc., which are more based on the novel and innovative concepts of brands and brand equity. This is indicative of a change in the intrinsic culture of branding in the country [18].

The TRIPS agreement defines what types of signs must be eligible for protection as trademarks, and what the minimum rights conferred on their owners must be. For a trademark to be registered, it should be distinctive, not deceptive, or contrary to law or morality, and not identical or similar to any earlier marks for the same or similar goods. A trademark may be refused registration, if it is devoid of any distinctive character i.e. not capable of distinguishing the goods or services of one person from those of another person or on account of being representative of characteristics akin to Geographical Indications. The registration shall be refused if the trademark has become customary in the current language or in the bona fide and established practices of the trade. A trade mark shall not be refused registration if before the date of application for registration it has acquired a distinctive character as a result of the use made of it or is a well-known trade mark [19].

In India, a mark shall not be registered as a trade mark if (a) it is of such nature as to deceive the public or cause confusion: (b) it contains or comprises of any matter likely to hurt the religious susceptibilities of any class or section of the citizens of India; (c) it comprises or contains scandalous or obscene matter; (d) its use is prohibited under the Emblems and Names (Prevention of Improper Use) Act, 1950. A mark shall not be registered as a trade mark if it consists exclusively of (a) the shape of goods which results from the nature of the goods themselves; or (b) the shape of goods which is necessary to obtain a technical result; or (c) the shape which gives substantial value to the goods [20].

(Figure 1; Sources:http://www.ecplaza.net/tradeleads/seller/6129006/wholesale_555_lights.html; http://en.wikipedia.org/wiki/Shoe_polish; http://en.wikipedia.org/wiki/Coca-Cola)

Marks that have become well-known in a particular country enjoy additional protection. Another area is characterized as the protection of distinctive signs, in particular trademarks (which distinguish the goods or services of one company from those of other companies).The protection of such distinctive signs aims to stimulate and ensure fair competition and to protect consumers, by enabling them to make informed choices between various goods and services. A trademark is an identification symbol: a Word, Letter, Abbreviation of Names, Device Names, Numerical, Signature, Photograph of a Person or a Combination of all. The symbols in Figure 1 reflect the appropriate trademarks in use.

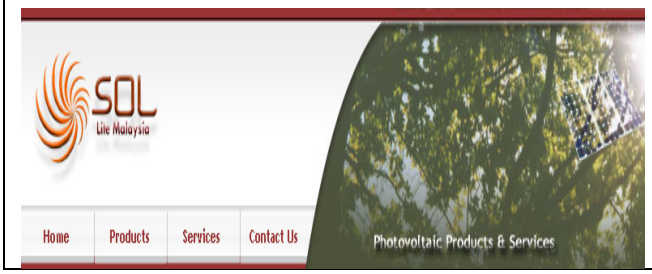
The right under trademark gives exclusive proprietary rights to the rights holder for protection of their trademark in the country where registration is taken. The rights holder can prevent unauthorized use of the trademark. The duration of a trademark is for ten years, which is renewable from time to time. The trademark may be sold, transferred and licensed.

According to the TRIPS agreement, the service marks are protected in the same way as trademarks used for goods. Where a trademark is used in connection with the services, it may be called 'service mark' e.g. service marks are used by hotels, restaurants, airlines or tourist agencies [21]. The service means service of any description which is made available to potential users and includes the provision of services in connection with business of any industrial or commercial matters such as banking, communication, education, financing, insurance, chit funds, real estate, transport, storage, material treatment, processing, supply of electrical or other energy, boarding, lodging, entertainment, amusement, construction, repair, conveying of news or information and advertising.

Some trademarks relating to companies dealing in renewable energy technologies:

SOLARPAC	This is a company in Bangladesh doing business in photovoltaic systems, photovoltaic modules, and applications like solar lighting systems, solar water pumping systems, etc. (http://www.solarpac.net/)
BHEL	The Indian public sector company doing business in photovotaics and renewable energy technologies. (http://www.bhel.com/home.php)

Some trademarks relating to companies dealing in renewable energy technologies:

moserbaer Photo Voltaic	This company is doing business in India in the field of solar photovotaics. (http://www.moserbaerpv.in/)
SUZLON POWERING A GREENER TOMORROW	This Indian company is a leading wind power company. (http://en.wikipedia.org/wiki/Suzlon)
	SOL-Lite Malaysia specializes in the field of solar (photovoltaic) power generation, products and services. The company designs and manufactures integrated power systems, including PV standalone, PV-generator hybrids and grid-tie systems. (http://www.sol-malaysia.com/)

Generally, a Trademark may not be registered if it is descriptive to goods but may be registered if the word or name which is primarily descriptive of the character or quality of the goods, may, by reason of use and reputation, lose their descriptive meaning and acquire a secondary distinctive meaning so that they indicate that the goods in connection with which they are used are goods made by a particular manufacturer. In essence, it will depend upon the respective national trademark law.

2.4.4 Undisclosed information, know-how including trade secrets

A trade secret is a confidential practice, method, process, design, or other information used by a company to compete with other businesses. It is also referred to as confidential information. With a view to understand the concept, consider there is a Company A, which is more successful than Company B. This is not so much due to access to markets, resources, or personnel, but due to special knowledge owned by Company A. If same knowledge is available to other companies, then the Company A's ability to compete would be impaired. Such knowledge are generally known as trade secrets and are closely guarded. All companies have secrets. Some are technical such as the detailed specification of a manufacturing process; some are business-related such as a list of customer names and addresses, which might be useful to a competitor.

In essence, a trade secret can be described as some sort of information that (a) is not generally known to the public, (b) confers some sort of economic benefit on its holder, and (c) is the subject of reasonable efforts to maintain its secrecy. The possessor of such information has to be careful to keep the information confidential (e.g. by signing non-disclosure agreements with employees/partners). The trade secrets offer no

protection against reverse-engineering or against competitors who independently make the same invention.

In many developing countries, there is no separate law for the protection of trade secrets. Instead, the law of protection of confidential information or confidence, effectively allows a perpetual protection to secret information. This is done under the civil law of contract. In recent years, several countries have introduced laws on the protection of confidential business information along the lines proposed by the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS).

Several of the renewable energy technologies while commercializing may have components of know-how, which are confidential. The know-how may include e.g. expertise, technical skills, training capability, understanding of how something works, software, technical specifications, design parameters, and any other related technical and non-technical information. It may also relate to the material specifications used, for example, the blade, brakes or gear box used in the wind turbines, efficiency, performance and the cost estimates in the installation of wind turbines. The know-how component in wind energy or wind power will also be the process by which the wind is used to generate mechanical power or electricity by the use of wind turbines.

The know-how may be transmitted in a tangible form or intangible form. In a tangible form, it may include architectural designs and plans of factory buildings, drawings and diagrams relating to the equipment, blueprints of machines, lists of spare parts, manuals or instructions for the operation of machines or the assembly of components, lists and specifications of new materials, process flow charts, packaging and storing instructions, reports on stability and environmental aspects, and job descriptions for technical and professional personnel. Such know-how in tangible form is sometimes referred to as “technical information or data.” In an intangible form, the know-how may include a situation wherein an engineer of the supplier of the know-how describes a process to an engineer of the recipient of the know-how, the manufacturing engineer of the recipient is provided an opportunity to visit the production line in the enterprise of the supplier and providing of training to the employees of the recipient of the know-how. The know-how is shared under the conditions or agreements of confidentiality.

The recipe for Coca Cola has been kept confidential till date and commands a high value.

2.4.5 Copyright and related rights

The concept of copyright protection refers to the protection of the expression of an idea and not the idea itself. The creativity protected by copyright law is creativity in the choice of and arrangement of words, musical notes, colours, computer coding, etc. The copyright subsists in original works. Ideas expressed in material form wherein sufficient labour, skill and capital have been used. The original works may include the literary and artistic works, scholarly publications in sciences, drama, music, sound recordings, and cinematographic films. The literary works are works expressed in print or writing irrespective of literary quality. It includes computer programmes, tables and compilations including computer databases. Examples: Question papers, Guide books,

Dictionaries, Catalogues, Letters (Private letters, Commercial letters, Government letters), Questionnaire for collecting statistical information, Research theses and dissertations. The titles, single word (not as literary work, but may be protected as artistic work); advertisement slogans may not be protectable as literary works [22].

The dramatic works include plays or theatre productions. The musical works include both written and unwritten musical nodes (Separate Rights in Lyric and Music). The artistic works include paintings, cartoons (they are both Literary and Artistic), photographs, sculptures, any work of artistic craftsmanship e.g. label, logos, colour combinations. Any building or structure having an artistic character or design, or any model for such building or structure is also protectable. The other protectable works include cinematograph films: feature film, documentary, video, TV film; and sound recordings: phonograms, records, CD-ROMs. Separate rights in the works are embodied in film or record.

The rights are available as soon as the works are created. However, it is the choice of the author to approach to the national IP office and also obtain certificate by registering for copyright of his works. The rights acquired by the author or creator are the moral rights and economic rights, the later include right to reproduction, adaptation and translation. The author of a work has the moral right to claim authorship of the work and to restrain or claim damages in respect of any distortion, mutilation, modification or other act in relation to the work, if such distortion, mutilation, modification or other act is prejudicial to his honour or reputation. For acquiring such rights, one need not necessarily apply for registration [23].

The specific duration of rights depends upon the national laws. According to the TRIPS agreement, the duration is the life time of author plus fifty years in case of published literary, dramatic, musical and artistic works. In some countries like India it is life of the author + 60 years. For all other works: posthumous, anonymous works, works of Government, public undertakings, international organizations, cinema and sound recording, photograph, generally, it is 50 years from date of publication. In case of India, it is 60 years. Performer’s rights include rights for recording, broadcasting and communicating to the public of a live performance; and presumption of transfer of performer’s right to cinematographic film producer. The term of protection is at least 50 years for performers and producers of phonograms, and 20 years for broadcasting organizations [24].

Fair use exceptions are available to use the copyrighted works in special cases. The permitted acts generally are of the nature of a fair dealing with a work for private use, research, criticism, news reporting, use by legislatures and judiciary, pedagogical uses by educational institutions and so on. These provisions enable legitimate use of new copyrighted works for the educational, scientific, and cultural advancement of the society. The fair use exception to a work should not conflict with normal exploitation of the work and should not unreasonably prejudice the legitimate interests of the author.

In the context of renewable energy technologies, copyright provides a significant tool for the protection of various kinds of intellectual property. The commercialization of RETs has several software packages, which are used to evaluate their costs and financial

viability or annual production. Software in photovoltaics can be used as planning or as monitoring tool, for yield analysis, and for design and analysis of a solar photovoltaic system. These are also available for pre-feasibility analysis for renewable energy projects. Such software may be protected as confidential information or under copyright laws. The copyright also provides protection to engineering drawings and specification necessary for setting up commercial plant for renewable energy technologies.

2.4.6 Geographical indications

Historically, there are several examples wherein a particular region got associated with certain goods and got its claim to fame. Columbus sailed from Europe to capture the wealth of rich Indian spices. Arabian horses, China silk, Dhaka muslin, Kashmere carpets or Indian rubber acquired their reputation. Each reputation was carefully built up and painstakingly maintained by the masters of that region, combining the best of Nature and Man, traditionally handed over from one generation to the next for centuries. Gradually, a specific link between the goods and place of production evolved resulting in growth of geographical indications.

Well-known examples include “Champagne”, “Scotch”, “Tequila”, and “Roquefort” cheese. The TRIPS Agreement contains special provisions for use of place-names to identify products such as wine and spirits. The issue is also important for other types of goods. Using the place name when the product was made elsewhere or when it does not have the usual characteristics can mislead consumers, and it can lead to unfair competition. Some exceptions are allowed by the TRIPS agreement, for example, if the name is already protected as a trademark or if it has become a generic term, then it can get recognition as Geographical Indication. For example, “Cheddar” now refers to a particular type of cheese not necessarily made in Cheddar, in the UK. But any country wanting to make an exception for these reasons must be willing to negotiate with the country which wants to protect the geographical indication in question [25].

In Indian laws, the Geographical indication in relation to goods means an indication which identifies such goods as agricultural goods, natural goods or manufactured goods as originating, or manufactured in the territory of a country, or a region or locality in that territory, where a given quality, reputation or other characteristic of such goods is essentially attributable to its geographical origin (in case where such goods are manufactured goods one of the activities of either the production or of processing or preparation of the goods concerned takes place in such territory, region or locality, as the case may be) [26].

The examples of Geographical Indications include:

Agricultural goods: e.g. rice (basmati, sona masuri), vegetables (Calicut ginger), wheat (Punjab wheat, M.P. wheat), fruits (Alphonso mango, Dussheri mango, Dehradun leechi), spices (Malabar spices);

Natural goods: e.g. coal (Jharia), lignite (Neyveli), gold (Kolar), Marble (Makrana), Stone (Kota);

Manufactured goods: Includes goods of handicraft or goods of industry and foodstuff and drinks (based on skills and traditions of the geographical region) e.g. textiles (Kanchipuram sarees or Banarsi sarees), leather goods (Kolhapuri chappal), brass goods (Moradabad brass utensils), sweets (Agra petha, Dharwad peda), Bikaner Bhujia.

The following are the example of Geographical Indication registered for Darjeeling Tea. The logo is registered in several countries like UK, US, Japan, Canada and Egypt. The Darjeeling tea has GI registration in India and may also get a GI status in Europe.

(Source: http://ipindia.nic.in/girindia/)

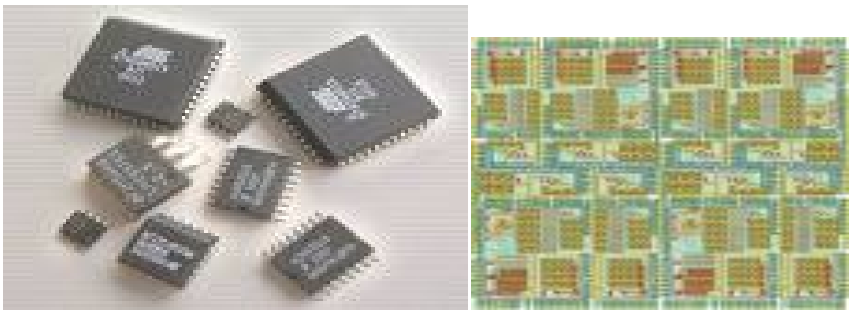
2.4.7 Integrated circuits layout designs

The basis for protecting integrated circuit designs ("topographies") in the TRIPS agreement is the Washington Treaty on Intellectual Property in Respect of Integrated Circuits, which comes under the World Intellectual Property Organization [27].

A semiconductor integrated circuit is a product having transistors and other circuitry elements, which are inseparably formed on a semiconductor material or an insulating material or inside the semiconductor material and designed to perform an electronic circuitry function (Figure 2). Topographies are innovative, three dimensional circuit designs used in many different products. Examples of such products are automobiles, industrial robots, cameras, spacecraft and computers. Most household appliances or mobile technology involve semiconductor chip or topographies protected under the Act. Several photovoltaic and renewable energy technologies make use of semiconductors to convert sunlight directly into electricity e.g. semiconductor wafers.

In India, the Semiconductor Integrated Circuits Layout-Design Act, 2000 is the prevailing law. A layout-design shall be registered if it is original, i.e. if it is the result of its creator's own intellectual efforts and is not commonly known to the creators of layout-designs and manufacturers of semiconductor integrated circuits at the time of its creation. Layout-designs are prohibited from registration under the Act if they are not original, have been commercially exploited anywhere in India or in a Convention

country, not inherently distinctive, not inherently capable of being distinguishable from any other registered layout-design. For obtaining protection, the inventor has to approach appropriate national designated agency. Registering the layout-design under the Act gives the rights holder the exclusive right to the layout-design and to obtain relief in respect of infringement. The duration of protection is for a period of 10 years counted from the date of filing an application for registration or from the date of first commercial exploitation anywhere in India or in any convention country (notified by the Government on the basis of reciprocity) or country specified by Government of India whichever is earlier [28].



(Figure 2)

2.4.8 Protection of Plant Varieties

The protection of new plant varieties provides incentives for continuing plant breeding, and, thus, is essential for the improvement of agricultural productivity. Under the TRIPS agreement, it is obligatory on part of a member country to provide protection to new plant variety either through patent or an effective sui generis system or a combination of these two systems. In India, a national law on the protection of Plant Variety and the Farmer's Right was promulgated in 2001. For the purposes of this Act, Protection of Plant Varieties and Farmers' Rights Authority has been established and is located at New Delhi [29].

The protection is possible to a new variety if it conforms to the criteria of novelty, distinctiveness, uniformity and stability or to an extant variety if it conforms to criteria of distinctiveness, uniformity and stability. An "Extant Variety" means a variety, which is (i) notified under section 5 of the Seeds Act, 1966 (54 of 1966); or (ii) a farmers' variety; or (iii) a variety about which there is common knowledge; or (iv) any other variety which is in the public domain.

The protection is made available to "Farmers' Variety", which means a variety that has been traditionally cultivated and evolved by the farmers in their fields; or is a wild relative or land race of a variety about which the farmers possess the common knowledge. A farmer is deemed to be entitled to save, use, sow, resow, exchange, share or sell his farm produce including seed of a variety protected under this Act in the same manner as he was entitled before the coming into force of this Act.

A farmer who has bred or developed a new variety shall be entitled for registration and other protection in like manner as a breeder of a variety. A farmer who is engaged in the

conservation of genetic resources of land races and wild relatives of economic plants and their improvement through selection and preservation is entitled for recognition and reward from the Gene Fund.

The term of protection in the case of trees and vines, is eighteen years from the date of registration of the variety. In the case of extant varieties, fifteen years from the date of the notification of that variety by the Government of India under section 5 of the Seeds Act,1966. In the other cases, it is fifteen years from the date of registration of the variety. Initially the certificate of registration shall be valid for nine years in the case of trees and vines and six years in the case of other crops. It can be renewed for the remaining period of protection.

In the context of renewable energy, the law may be significant for the protection and development of new varieties which may be used, for example, in production of biodiesel.

2.4.9 Patent Information

The information contained in a patent document is called patent information. World-wide millions of patents are granted to inventors. The technical information contained in patent documents is the latest information available and published for the first time any where in the world. Such information may be used to avoid re-inventing the wheel, learn from the research work of others, adapt technologies for local conditions, and identify opportunities and potential partners for licensing, technology transfer, etc. It can further help to identify trends in relevant technologies, identify the major entities, countries, companies developing a technology, and investigate the patent landscape of a technology – legal status, ownership, geographical coverage. In case of embedded technology transfer, the technology transfer may take place by market mechanisms. Access to new technologies can be obtained via trade in products and capital goods, licensing, direct investment. In such a case, the patent information may be used to identify potential business partners, and validate legal status, ownership, legal scope of patent rights, estimate the market value of a technology, and find appropriate technologies for transfer. [30]

Technology disclosed in a patent document will be in the public domain in a country if the patent application has not been filed in that country. It will also be in public domain when the patent term has expired, or the patent has not been renewed. The technological information disclosed in the patent document but not covered by the claims, is also in public domain.

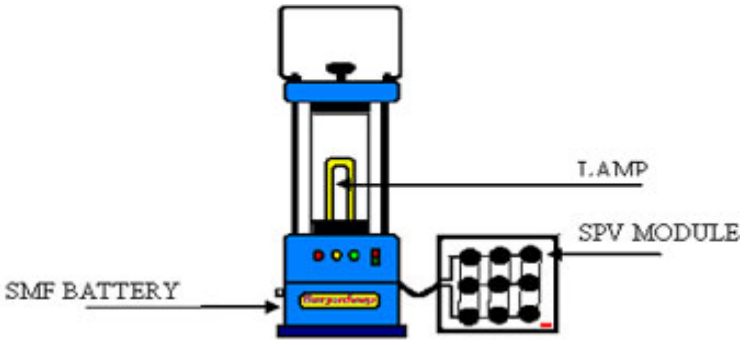
3.0 Intellectual Property Issues to be considered while transferring renewable energy technologies

Ideas by themselves have little value. They need to be developed, turned into innovative products or services and commercialized successfully so as to enable a company to reap the benefits. Most new products or processes in the market are a result of big or small, innovations which may be protected by one or more forms of the intellectual property rights. Any company engaged in the business of renewable energy products or technologies is likely to deal with one or more dimensions of intellectual property while creating or utilizing new inventions or IP. Therefore, the understanding of the role of intellectual property as a business asset and harnessing its potential for enhancing competitiveness is of increasing significance for such companies. The companies, in particular, need to develop their capacities in handling intellectual property issues that may arise in the process of trade and transfer of technologies. This section aims to provide insights on the kind of intellectual property issues that may arise during transactions involving intellectual property or transferring renewable energy technologies.

3.1 Case studies

3.1.1 Solar Lantern – a case of low end intellectual property

A solar lantern is a simple application of solar photovoltaic technology, which has found good acceptance in rural regions where the power supply is irregular and scarce. Even in the urban areas people prefer a solar lantern as an alternative during power cuts because of its simple mechanism. A solar lantern is made of three main components - the solar PV panel, the storage or rechargeable battery and the lamp. The operation is very simple. The solar energy is converted to electrical energy by the Solar Photovoltaic (SPV) panel and stored in a Sealed Maintenance-Free (SMF) battery for later use during the night hours (Figure 3). A single charge can operate the lamp for about 4-5 hours [31].



(Figure 3- Source: http://www.geda.org.in/solar/so_slr_lt.htm)

There are several types of solar lanterns available with innovative designs in the market. The companies have been constantly developing innovative solar lanterns by value addition to suit the needs of the customers - safe, energy-efficient and environment-friendly.

The intellectual property in such a product can be said to involve, primarily, a low end technological know. The IP component of the solar lantern is primarily to integrate all the three components, SPV panel, battery and the lamp. At the most, it may have new design components of the lantern to enhance the product efficiency and the customer satisfaction. All the three components of the solar lantern may be got custom designed and obtained from vendors according to the requirements of the product from the market. In such a case, the information on technical parameters of a component will form the part of the technological know-how. The new and original contributions in the product, which may vary are the product specifications – service and design characteristics - to best satisfy the needs of customers. This will be confidential information to be protected accordingly. The new design, if original, thus, needs to be protected under design IP by registering with appropriate IP office.

Intellectual property Issues while considering transfer of technology

There may be range of manufacturing options, which may include the manufacture of outer casings and other components of the lantern. These may include either manufacturing by the company on its own or seek manufacturing through outside vendors on the basis of the design, quality and performance requirements. In case of the former, one may only need injection moulding machines, and high density polypropylene, which are established commercial products and the manufacturing know-how is known and in public domain. The main battery or the rechargeable battery device can be obtained from public domain commercial vendors. The modification may be done to suit the product requirements. Any improvements in developing the rechargeable aspects of the battery, if done by the supplier, may also be protectable as the know-how and kept confidential. Further, the quality control and marketing relating information shall also form as part of the confidentiality.

Let us presume that this technological know-how is in possession of a company A, say MYSOLAR, the seller, who is in the business of making several products based on photovoltaic technology. These may include photovoltaic applications and products like solar pump, solar water heater or solar lighting products. RUSOLAN is another company B that is in the business of marketing solar lanterns to the rural people and wants to now expand its business by diversifying into manufacturing of the solar lanterns. It has desired to obtain the solar lantern technology from MYSOLAR on outright purchase. MYSOLAR wants to transfer the technology to the RUSOLAN.

At the outset, it is well-know that the technology being sought is the proven technology. From intellectual property rights perspective, the buyer company needs to first know various kinds of intellectual property involved in the supply of the technology. Certainly, there is no patent in the technology. The supplier indicates that most of the technology is in the public domain, the only innovative aspects relate to the unique design, for which it has been duly awarded certificate of registration from the national IP office. The

remaining aspects relate to the product characteristics, the customer preferences, the quality control, and performance parameters, which the supplier indicates are the confidential information and will only be transferred as part of the Technological Know-how. From the perspective of the buyer, he needs to ascertain that the technology works within the cost and performance parameters as indicated by the supplier. The buyer can do this in several ways, e.g. by checking the performance data of the supplier company about the product, or by making a prototype on its own on the basis of the information given by the supplier. The supplier may ask the buyer to sign the Non-disclosure Agreement for the confidential information being provided by him for this purpose. This agreement binds the buyer not to disclose the information so obtained or utilize the information for purposes other than making of the prototype and checking on the performance parameters. After satisfying himself with the technical feasibility of the technology, the buyer needs to check that the seller has the full rights to the registered design of the product and that no rights of any other person are involved. The buyer should ensure this from the seller and insert a clause in the agreement to the effect that there are no third party claims in the technology being supplied and that it is the responsibility of the seller to settle any claims of infringement.

The buyer should ensure to obtain not only the core technological know-how which may include the confidential information to manufacture the product, including the detailed design specifications, drawings, and the product characteristics but also the information essential to operationalise the technology, and the guidance from the supplier on the operating environment e.g. the competitors, the advantage of the MYSOLAR product over those of the competitors, the policy information like the subsidy that can be secured from the Government, or any possible threats that may affect the production and marketing of the product.

Another important issue that is to be settled between the parties relates to the rights on the improvements over the technology being obtained by the buyer. Who will own the rights if the buyer or seller makes any improvements in the design or product characteristics to improve its performance? The buyer should ensure that such rights remain with him. The seller has to share any new intellectual property created by him to improve the product. In principle, any improvement made by the supplier should also be available to the buyer.

(Source: http://www.tatabpsolar.com/prod_gallery.html)

The buyer may finally make an assessment of the value of the technological know – how and go ahead with the buying of the technology by payment of a lump-sum payment. This can be a simple transfer of technology agreement. Further, there is also intellectual property in the trademark of the Lantern. The company MYSOLAR may be selling its product under its trademark. The buying company will have to take a decision whether to buy the trademark of the seller company or market it under its own trademark. Since buying of the trademark `MYSOLAR` is going to cost higher to the RUSOLAN, the later decides to sell it under its trademark. The decision is taken in view of the already existing goodwill of RUSOLAN in the rural market, where it feels it can market the solar lantern and also add value to its trademark.

Lesson:

The buyer needs to first ensure the technical feasibility of the technological and manufacturing know-how. There is transaction of confidential information for this purpose that will need a non-disclosure agreement to be signed between the two parties. This case study indicates that the deal involves transfer of know – how through the supply of technical information, data, and confidential information. This does not include the transfer of know how through a technical consultant. In addition, it has included the transfer of design rights, which may be transferred as an outright sale or assignment.

The case study indicates the intellectual property issues and the need of model agreements, for example, the non – disclosure agreement, and the agreement for the transfer of technology (design rights as an outright sale and the know-how).

3.1.2 Upgrading inventive features of Solar Lantern – a case of medium level intellectual property

RUSOLAN established a manufacturing enterprise and a market of the solar lantern in the rural hinterland. The company desired to introduce innovative improvements in the product by adding additional features like mobile charger, adding good looking silk cloth around the LED light to make its design also attractive to the urban customers, and also to improve the product efficiency in diversity of locations. The company could do this by its own R&D efforts. It also introduced the improvements in the product efficiency by making changes in the design and functional features. These improvements required protection of IP and steps were taken to obtain the requisite protection by obtaining certification for the improved design by the national IP office in the name of RUSOLAN. In addition to the design improvement, the company also generated confidential know-how on the improved product characteristics.

Foremost, the improvements were made by its own employees. The intellectual property so generated was owned by the company. The employees assigned the rights to the company as part of the employment agreement, which stipulated that all intellectual property created by the employees would belong to the company.

Contracting R&D to a research institute

RUSLON further desired to improve the efficiency of the solar lantern by improving the maintenance of photovoltaic wafer modules. The company contacted one of the leading 'Renewable Energy Research Institute' (RERI) to provide the necessary R&D inputs. Of the different options of contracting out research to the Institute or collaborating in research, the company preferred the first option. It contracted out the specific technical problem, i.e. 'to improve the efficiency of the photovoltaic wafer module of the solar lantern by introducing innovations so as to improve its maintenance', for solution to the RERI. The company made lump sum payment and funded this project to the research institute. RERI was to provide the technical solution to the problem. On allocation of intellectual property rights, it was agreed that any patents arising out of the research and within the scope of the research contract shall be assigned to RUSOLAN, who will pay the requisite expenses for the filing of the patent application and its future maintenance. The RERI shall have the right to the publications arising out of the research only after the patent application has been filed. There was no background intellectual property contributed by any of the two parties. However, for future use of the intellectual property generated, the issue was settled that the RERI had the right to use the new knowledge for research purposes. If the said knowledge (Patent) was used in any future technologies or patents for commercial purposes then a license would be required from the RUSLON.

The RERI came out with a novel technical solution of the problem posed to it. It added a dust sensor, which feeded information to a device that automatically got activated when the level of dust reached at a threshold level and, thus, cleaned its surface at regular intervals. The sensor and the device functioned by using the battery charged from the solar energy itself. This functional improvement got a patent to the invention (Patent 1). The research institute further improved the functional features and obtained another patent (Patent 2) for adding a new feature to the power load circuit of the solar lantern. In this invention, the power flow from the battery stopped when it reached at the threshold of a low voltage. The new invention made the device to reset the flow of the reserved power to the battery from the solar panel and further charge the battery to function properly. The technology was thus upgraded. This improvement was not part of the contract given by the company to the research institute. The research institute was free to sell this patent to any one. The patent was taken in the name of the research institute. It could have considered giving an exclusive or a non-exclusive license. RUSLON, thus, realized that it should have thought of such a possibility while working out the contract agreement with the research institute. It should have put a condition that, in case any additional and related intellectual property was generated during the research, the company shall have the first right of claiming the ownership. However, the company separately negotiated and obtained the exclusive license to the patent, on payment of a reasonable price. The research institute also did not consider other options of ownership of intellectual property as it wanted to generate goodwill with the company for a future relationship.

IPR issues while considering technology transfer from company to company

RUSLON added value to the intellectual property of solar lantern by making improvements in its design, product characteristics, and the functional features.

RUSOLAN now thought of profiting from its improved solar lantern by licensing the technology to entrepreneurs at other locations. A new company, named, RUTEC was keen to obtain the technology from RUSOLAN. This new company was in the business of solar products and had a good base in both rural and urban markets in several countries. RUSLON agreed to transfer the technology under license to RUTEC. The foremost issue with the buyer is to ensure that the supplier is the true owner of the patents and that the patents were in force. The maintenance fees for the patent had been paid regularly. The intellectual property licensing agreement, thus, included licensing of patent, design, and technological know-how. The core elements of such an agreement, particularly, need to include the rights of ownership of IP and the later modifications and improvements. In addition, the agreement also provided for the training, after sales service and availability of any spares. For training, the supplier must prepare full documentation elaborating the salient features of the technology and the product, and conduct the training at the site of the buyer. For this purpose, the issue for the buyer was to obtain from the supplier all the copyrighted material, drawings and engineering details about the technology and its operationalisation.

RUTEC also faced similar intellectual property issues as a buyer as were earlier faced by RUSOLAN (case study 1). In addition to the issues discussed already in the case study 1, viz. the technical feasibility, the issue in the present case was the working of the patented technology. Not only RUTEC had to test and verify the technology at a prototype level, it might have to carry out further research work to upgrade and commercialize the patented technology. The patented technologies (Patent 1 and Patent 2) required further development and technological know-how to operationalize these at the commercial level. For this purpose, RUTEC obtained confidential information from RUSLON under the Non-disclosure agreement. The patent had to be kept alive for which the payments had to be made by the buyer company.

RUTEC had business in several countries where it could expand its market for the improved solar lantern. This involved an issue of obtaining patent rights in other countries. How could it be resolved? Who will own the patent in these countries RUTEC or RUSLON? In principle, RUTEC has only got the license to use the patent for a limited period of time; it does not own the patents. Two parties will have to negotiate the issue of ownership and that how the expenses will be met for maintaining the patents in these countries. RUTEC must ensure that RUSOLAN helps it to secure patents in other countries. One possible way out could be that RUSLON obtains the patents in its name while the fees for the maintenance of patents are paid by RUTEC. The licensing fees or royalties to be paid to RUSLON may be appropriately increased.

Another issue is the ownership of the intellectual property that gets created by making improvements and modifications to the patent. In the present case, the license may provide for the right of the buyer to adapt the product to the local markets in different countries, own the intellectual property and resell it. The buyer keeps the right to the modifications, whether made by the seller or the buyer. This right may have to be negotiated by the buyer on payment of a reasonable fees.

The agreement should provide for arrangements with third parties in obtaining the essential parts e.g. the sensitive dust device or PV module as per the technical

specifications to the satisfaction of the buyer, which could be done under contract with the third parties and in confidence.

With a view to work out a long-term business relationship, the two parties agreed to exchange information on any changes in the operational environment of the technology. The seller also agreed to strengthen the knowledge, information, and managerial skills of the buyer relating to the intellectual property being transferred through holding of regular training programmes and briefing meetings.

Lastly, the royalty is the core negotiating element. Since, the technology is being transferred under a license, royalty arrangements are required to be worked out, in addition to the lump-sum payment to the seller.

IP issues while transferring patents from R&D to company

The upgradation of the technical features of the solar lantern involved improvements made in design by the Internal R&D of the company and contracting of R&D to a research institution leading to two patents (Patent 1 and Patent 2). In principle, the key IP issue is to define the ownership of intellectual property resulting from results of research. Whether the resulting IP is to be entirely owned by the research institution, or the company or to be shared between the R&D institution and the company? In this case, the company contracted out R&D to the research institute under an agreement by making a lump sum payment and, thus, owned the rights to Patent 1. The expenses for its maintenance were to be made by the company. On part of research institution, it had the right to make publications. However, the two parties agreed that the publications may only be made after the patent application has been filed. Any publication prior to filing of the patent application may result the proprietary knowledge to be in public domain. It meant that the patent could not be granted on such proprietary knowledge. In case of Patent 2, the company did not perceive the possibility while contracting out the research that proprietary rights might arise outside the scope of the contract. Therefore, it had to buy those rights, separately.

In case of improvements made by the Internal R&D, it was significant that the company had appropriate provisions in the employment agreement with the employees that they will assign the IP generated during the course of employment to the company.

Lesson:

The case study indicates that the technology embedded in patents has been transferred, which required a duly negotiated agreement on licensing of patents. Through a license, the owner of a patented invention gives the permission to the company to perform, one or more of the “acts” which are covered by the exclusive rights to the patented invention for the duration of the patent. These “acts” are the “making or using of a product that includes the invention, the making of products by a process that includes the invention or the use of the process that includes the invention.” In a number of countries, the patent law may require that an instrument of assignment of patent rights or a license contract be presented to the patent office for registration. By the act of registration, the Government recognizes the assignee or the licensee as the

transferee or holder of the rights transferred by the assignment or of the rights conferred by the license. The buyer must ensure that such rights are transferred in his name.

The case study also indicates that confidential information or technological know – how will be transferred. This could be a separate stand alone agreement or form the part of the main legal agreement under which the technology has been licensed. The provisions concerning know-how in the contract will need to cover measures to safeguard against the disclosure of the know-how to unauthorized persons. In addition, it may include the transfer of design rights, which have been transferred as an outright sale or assignment.

The transaction in technology involved the needs of training, and after sales service., which may require the deputation of a consultant in transferring and operationalizing the technology. The employees assigned the rights to the company as part of the employment agreement, which stipulated that all intellectual property created by the employees would belong to the company. An interesting aspect of the case study is the contracting of R&D to the research institute and the ownership or sharing of the resulting intellectual property.

The case study indicates the kind of agreements required for handling the intellectual property issues, viz. licensing of a patented invention, sale of design rights, the transfer of know-how, and the non – disclosure agreement, deputation of consultant, transfer of R&D results and patents to the company, assignment of employees' intellectual property to the company.

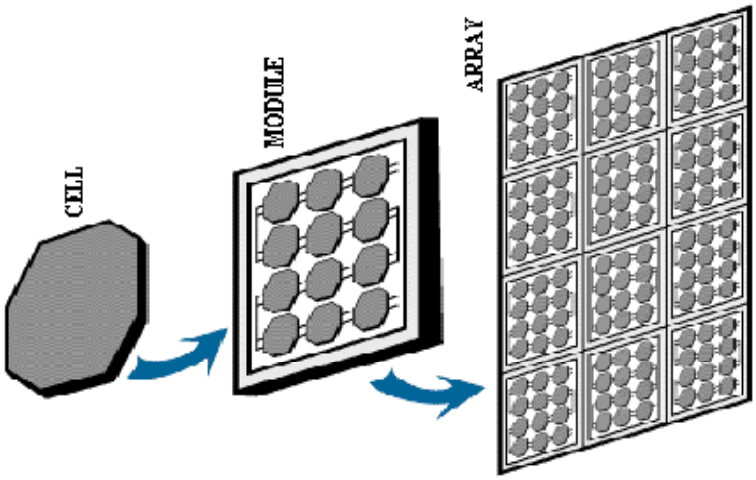
3.1.3 Solar panels or modules: a case of higher end intellectual property

One of the key components of the solar lantern was the solar panel or module. The solar module (or panel) comprised of several individual photovoltaic cells connected in series or parallel mounted in a support structure or frame with a metallic material. The cells could be arranged in a module so as to produce a specific voltage and a specific current to meet the client's electrical requirements. By connecting solar panels in certain configurations (called a solar array), one can obtain the current and voltage of the array, thus getting the electricity the system produces (Figure 4 & Figure 5). In a solar panel, the current produced was directly dependent on how much light fell on the module. In general, the larger the area of a module or array, the more electricity is likely to be produced [32].

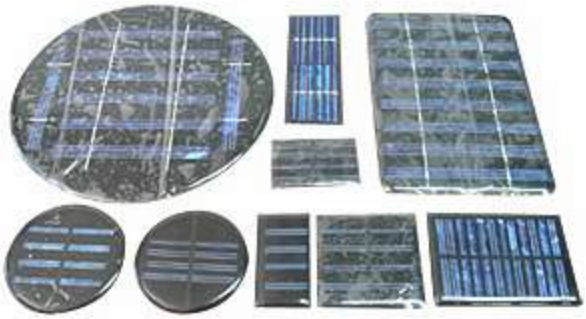
The RUTEC and RUSOLAN decided to expand their business into manufacturing of the solar panels. For this purpose, they explored the technology of integrating solar photovoltaic wafers into solar panels for customized requirements. On their own, they had a big requirement for small solar panels for the solar lanterns. The intellectual property in solar panels was not as simple as that of solar lantern or upgraded solar lantern but required higher technological competence and capacity for their manufacture. The IP component included, particularly, in the integration of solar photovoltaic wafers into solar arrays or panels and included a combination of glass lamination of panels, junction boxes, tempered glass, and solid aluminum frames. The

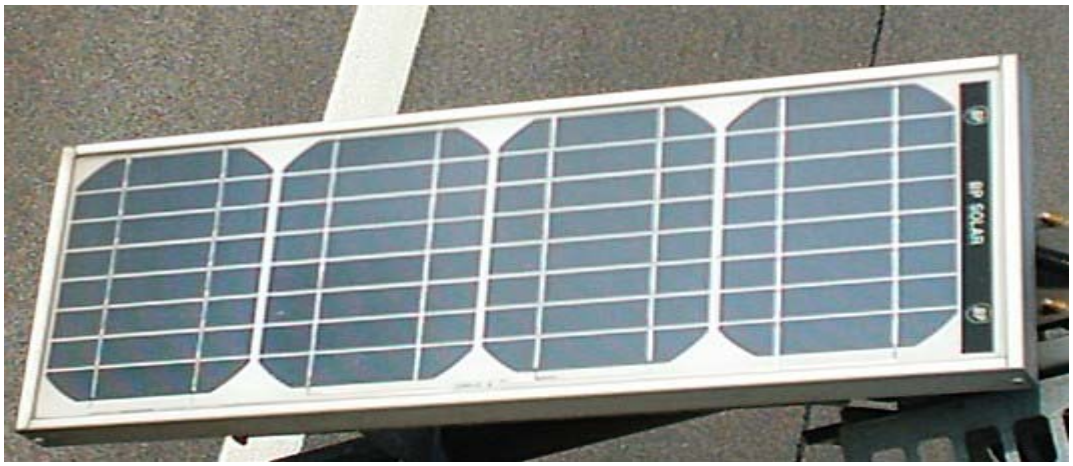
other elements of IP included customization of solar panels to specific size, current and voltage as per clients' requirement.

There are different types of photovoltaic solar modules, viz. monocrystalline silicon photovoltaic solar modules, ploycrystalline photovoltaic modules, small solar panels, or resin solar modules. The specific size, current and voltage could be customized as per clients' requirement, e.g. the small solar panels may be customized for applications like solar lantern. Further, the photovoltaic modules and arrays produce direct-current (dc) electricity. The other components required for providing electricity were an inverter and a storage device. The inverter helps change the DC power (direct current) produced by the cells to the AC (alternating current). The storage unit stores the energy created by the photovoltaic cells for use when there is little or no sun. One storage unit that works well with photovoltaic cells is a battery, which stores the energy created electrochemically [33].



(Figure 4-Source:http://science.nasa.gov/headlines/y2002/solarcells.htm)





(Figure 5-Source: http://en.wikipedia.org/wiki/File:SolarpanelBp.JPG)

Building upon the case studies of transfer of solar lantern technologies (case study 1 & 2), both the companies, namely RUSOLAN and RUTEC, desired to collaborate to further take forward their business relationships. They agreed to initiate a new venture for the manufacture of solar panels and modules, customize them to the needs of clients and specific products like solar heater, solar refrigerator, and solar lanterns etc.. Jointly, they looked for the technology supplier for the solar panels. They found that there were several companies in the solar panel technology in the market who could be approached for their requirement. There was a company, named, DP SOLAR that had the creditability in the market and also had patents to its credit including e.g. mounting system for solar panels, and sun tracker for solar panels. DP SOLAR also had several design concepts for solar panels including the colour combinations of the panels that enhanced the efficiency of its products.

IPR issues while licensing of IP

As a very first step, the companies, RUTEC and RUSOLAN, desired to establish a partnership firm named `RUTEC RUSOLAN PANELS & MODULES (RRPM)` so that they could install supplier's (DP SOLAR) solar panels for the markets, wherein their business was active. Later, the business could be diversified into other markets. The possibility of building up together a new solar panel manufacturing plant was explored

by acquiring the technology under a license. The technology transfer could cover maintenance of supplier's solar panels technology as well as installation of it. They also desired to receive support for design installation, engineering, and technical training on maintenance. DP SOLAR was willing to partake with its proprietary as well as non-proprietary technology to manufacture the solar energy panels under a license.

RRPM, the buyer, did not have any background intellectual property relating to the technology for integrating solar panels. However, it had the technical expertise to understand the nature of IP involved in the technology and its various components and was in a better position to carry out the negotiations of the licensing agreement. This included DP SOLAR's patents, its unique design concepts, and the know-how for commercialization of the technology. Some of the IPR issues are discussed below.

The buyer has to ensure the technical feasibility of the technology, for which requisite data and technical information was sought by signing a confidentiality agreement. The issue was to ensure that the technology being acquired works under the local conditions. The buyer must obtain the rights to registered IP, operational know-how and the confidential information for implementing the technology. The issue is to establish a record of all intellectual property being obtained, ensuring that the seller has clear title to all such intellectual property, and that the rights to all such IP are licensed to the buyer. The buyer insisted to mention the patent number and other details of the registered IP in the agreement so as to avoid any future disputes.

The buyer has to decide that what kinds of rights are required, viz. exclusive or non-exclusive or sole rights. In view of the significance of the technology to its business RRPM takes a decision to obtain an exclusive license to the intellectual property in patents, and buys the design rights by making an outright payment. The other kinds of rights which are essential to be negotiated are the rights to the future improvements. The improvements may be made by the seller or the buyer. In either case, the buyer is entitled to keep the rights for its benefits. The issues to be considered include the identifications of the improvements being made, by whom and their ownership. It may be useful to define what will constitute the improvement and will be part of the agreement. The two parties agreed to exchange information on improvements and the right to use on a royalty-free basis any IP emerging out of the improvements.

The technology transfer also covered maintenance of supplier's solar panels technology as well as installation of it. DU SOLAR agreed to provide the necessary documentation, know-how, and support for design installation, engineering, and technical training on maintenance.

The duration of the agreement was an important issue for the transaction in intellectual property. The buyer needs to ensure that the agreement of licensing IP cannot last beyond the term of the embedded IP that is being licensed. On termination of the agreement, the buyer shall keep the rights to use confidential information shared during the operative phase of the agreement.

Lesson:

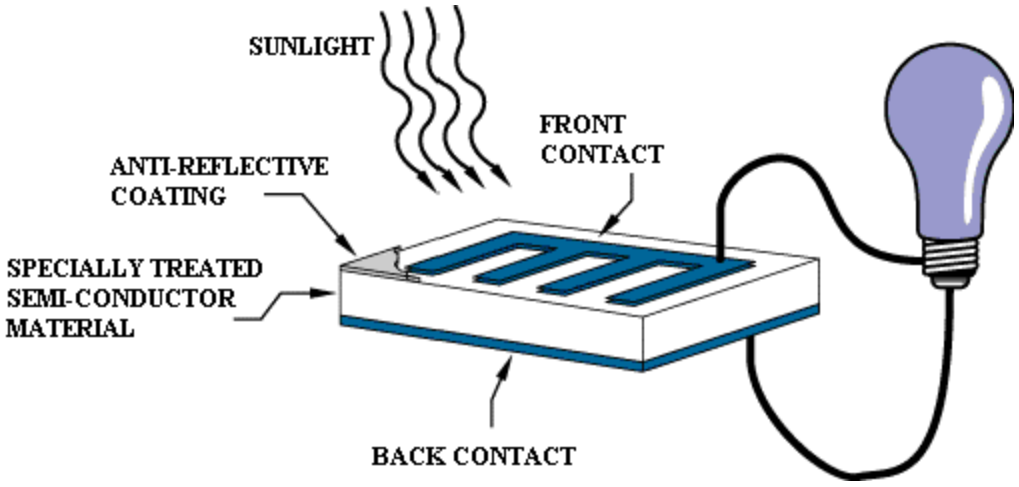
The case study indicates that the buyer should be better prepared to negotiate the licensing of solar panel and module technology, by understanding of IP in the technology. It successfully negotiated on several key IPR issues of the license agreement that included explicit identification of the intellectual property involved and being licensed, the validity of the ownership of the IP of the seller, elements of confidential information or technological know – how, the exclusivity of the nature of rights being obtained, the rights to future improvements, rights to maintenance of supplier's solar panels technology including necessary documentation, know-how, and support for design installation, engineering, and technical training on maintenance, and the duration and termination of the agreement.

The provisions concerning know-how in the contract will need to cover measures to safeguard against the disclosure of the know-how to unauthorized persons. The transaction in technology involved the needs of training, and after sales service, which may require the deputation of a consultant in transferring and operationalizing the technology. The case study particularly provides insights into salient features of the IPR issues, that needs to be included in any agreement for the licensing of the technology.

3.1.4 Photovoltaic systems: a case of complex intellectual property strategy

Photovoltaics is the direct conversion of light into electricity at the atomic level. Some materials exhibit a property known as the photoelectric effect that causes them to absorb photons of light and release electrons. When these free electrons are captured, electric current results that can be used as electricity. Typically, solar cells are made of semiconductor materials, such as silicon, used in the microelectronics industry. For solar cells, a thin semiconductor wafer is specially treated to form an electric field, positive on one side and negative on the other. When light energy strikes the solar cell, electrons are knocked loose from the atoms in the semiconductor material. If electrical conductors are attached to the positive and negative sides, forming an electrical circuit, the electrons can be captured in the form of an electric current -- that is, electricity. This electricity can then be used to power a load, such as a light or a tool (Figure 6).

The IP component of the technology, primarily, includes the conversion of the basic raw material silicon into silicon ingots, which are sliced into wafers using latest wire slicing technology. Silicon crystals may be made by the process of crystal growth or by casting in specially designed furnaces. The slicing of the ingots into wafers includes a high-end of IP, which are generally based on specific customized design requirements. High quality of wafers guarantee high productivity. The wafers are used in the making of PV cells. The cells are integrated into Modules and Systems. The IP is complex in view of several material layers and designs characteristics of wafers, high risk and high investment technology. The PV cells are generally made either from crystalline silicon, sliced from ingots or castings, from grown ribbons or thin film, deposited in thin layers on a low-cost backing. Silicon-based technology is technically proven and reliable, and has succeeded in achieving market penetration, primarily in off-grid remote areas and in grid-connected applications where sufficient subsidies are available to offset its high cost [34].



(Figure 6-Source: http://science.nasa.gov/headlines/y2002/solarcells.htm)

Being a relatively new industry, research and development continues to be critically important, both for the development of new PV technologies as well as for the improvement of manufacturing processes, end use components and marketing strategies. For researchers this means that they must either seek commercial partners very early, or they must seek funding to undertake the higher cost technology development phase themselves. Today, the photovoltaics industry is one of the most rapidly growing industries worldwide.

RUSLON desired to establish a joint venture company to expand into the business of manufacturing of solar photovoltaic cells with a technology supplier of solar photovoltaic cells. It explored several collaborators. The company APPLE MATERIALS had proven thin film technology to manufacture ingots and wafers for solar photovoltaic cells and the latest plant based on the technology. It examined the credentials of the RUSLON as a potential partner and agreed to join in the proposed joint venture with RUSLON.

IP issues in a joint venture

APPLE MATERIALS agreed to join in the proposed joint venture company by bringing its solar photovoltaic cell manufacturing technology, expertise, and also financial assistance. A basic understanding was reached between the APPLE MATERIALS and RUSOLAN on the formation and operation of the joint venture. A Memorandum of Understanding was signed between the parties. The joint venture agreement is generally worked out on the basis of such an understanding. Intellectual property is one of the key components of such an agreement. From the perspective of intellectual property, there are several issues that are required to be kept in view. Foremost, what each party brings to the joint venture, needs to be clearly spelt out. APPLE MATERIALS contributes by way of its proprietary technological information, viz. patents, design rights, trademarks, and confidential information. RUSLON also contributes its own IP by way of equity, marketing experience and the know-how of running a technology venture.

It also brought with it the knowledge of local laws, culture, and business practices and customs of the people, an established distribution network, and valuable business and political contacts.

Foremost issue for RUSLON and APPLE MATERIALS is to build a relationship of trust and honesty between them about their business goals. This kind of relationship shall go a long-way for the success of the joint-venture. The sharing of essential confidential information is to be done by signing a non-disclosure agreement. The joint venture agreement would further require that information shared was only to be used for the purposes of negotiating the formation of the JV and that it would not be shared with any third parties.

RUSLON took necessary steps to verify the technical feasibility and ownership of the IP being contributed by APPLE MATERIALS. RUSLON made all the efforts to explicitly define the IP being acquired during the joint venture agreement. It took a thorough due diligence of patent, trademark or design IP being contributed by APPLE MATERIALS. After satisfying itself with the due diligence, RUSLON took to the next step of licensing or assignment and work out the conditions of the transfer of IP from APPLE MATERIALS to the joint venture. APPLE MATERIAL opted to transfer the IP of patents and related know-how under exclusive license, while it agreed to outright sale of design rights. The ownership of improvements in IP is another significant issue for the joint venture. The background IP was entirely being contributed by APPLE MATERIALS. It was, thus, agreed that rights to any improvements made by the joint venture company will be available to APPLE MATERIAL on payment of a reasonable fees. The two agreed that in the event of termination of the agreement, any IP generated and owned by the joint venture could be available to both the collaborating parties for their own use freely or on cross-licensing basis. On jointly owned IP, it was agreed that they will jointly license the IP to third parties.

Lesson:

The case study indicates that the parties joining a joint venture should build on a relationship of mutual trust and honesty and to benefit from the relationship to achieve their business goals. Each party should be clear of the exact contributions of each other to the joint venture. A due diligence may be handy to make such an assessment. The validity, scope, and protection of IP being contributed by the other party have to be verified. The other issues of joint ownership and termination of the agreement need to be attended to by the two parties. The salient features of the model agreement for the IPR issues, which are required for setting up a joint venture, should be explicitly included in the main agreement.

3.1.5 Diversifying into alternate energy: a case of enhancing IP competitivity

A large Indian company with its established business in the conventional oil and related sector has acquired several technologies from abroad. In addition to its established business, the company has been exploring ventures in all forms of alternate energy including solar, wind, and bio-fuels.

The company acquired mostly proven technology from seller from abroad. The choice of technology supplier was made on the basis of open tender system inviting bids to supply technology and plant for a particular product. The decision was generally taken on the basis of the net worth of the cost of erection of the plant, yields and performance parameters, and ensuring that the ownership of the intellectual property rights associated with the technology are with the technology supplier. It may also verify the performance parameters by visiting similar plants already in operation elsewhere or by setting up its own pilot plants. Generally, the performance of the technology was warranted by the seller for a minimum period of 10 to 15 years although the plant may run for a longer period. Wherever needed the basic documentation of the ownership of intellectual property was verified by the buyer for authentication. Initially, a confidentiality agreement was signed to obtain relevant data on the performance of the technology, which later got subsumed with the main technology licensing agreement. The confidentiality and the protection of copyright were associated with the supply of the engineering drawings of the plant know-how by the supplier to the buyer that were generally obtained under the confidentiality agreement. On intellectual property side, the buying company simply ensured that the IP rights are with the supplier and he shall be responsible for any third party claims or any IP issue that may arise in future. The buyer shall in no way be responsible for any such claims. Moreover, the buyer was of the view that since the technology suppliers are large and credible companies, there were less chances of any conflict arising out of the ownership of intellectual property. The technology licensing arrangement kept a provision that any modification on the technology shall be supplied by the seller to the buyer as and when it happened. To the contrary, if the buyer made any modifications on the technology acquired, the supplier will not necessarily have the intellectual property rights on the improvements made. In its experience, no major conflict had arisen with respect to intellectual property during the acquisition and licensing of the technology by the buyer company.

The buyer company had established its own research and development unit and recently, a new company was floated to market the technologies and innovations resulting out of its in-house R&D efforts. The vision of the company is to be a leader as technology provider through excellence in management of knowledge, technology and innovation for the benefit of the stakeholders. The company had acquired several patents with India and abroad. It offered several novel products and innovative technologies. It also offered several quality technical services like materials engineering services, thermal cracking and catalyst management. The company emphasized the protection of new knowledge and inventions by taking patents in India and abroad.

The company is slowly and steadily expanding into the business of alternate energy. For example, to reach out to the complete bio-fuel value chain, the company formed a joint venture, for carrying out farming, cultivation, manufacturing, production and sale of biomass, bio-fuels and allied products and services. A pilot project of jatropha plantation is underway to ascertain the feasibility of commercial biodiesel units and to develop benchmarks for plantation costs and output. It has also forayed into wind energy business with the commissioning of wind power project.

Lesson:

The case study indicates that the company is handling several of the issues during the transfer of technology by focusing on pragmatic and operational context of the IP being acquired under a license. It has shared some salient IPR issues in this context. In view of the global changes and the emerging business opportunities in alternate energy, it is slowly and steadily expanding its business by acquiring such technologies.

(Source: Inputs based on personal discussions with Director (Business Development), Indian Oil Corporation Ltd. and www.iocl.com)

3.2 Defining Intellectual Property in the context of transfer of renewable energy technologies:

The case studies amply make clear the concept of intellectual property where the core technology is that of the solar lantern including the registered design, and the confidential information about the product and service characteristics. The operationalisation information may include the information about the machinery available from the public domain knowledge, the raw material to be used, its quality, and the die to be made for mouldings of the casings of the lantern. The environmental factors, for example, may include the business strategies of the competitors, the customers, the governmental policies regarding subsidies being provided for the marketing of the solar lanterns in the rural areas. Deriving from this analysis, the intellectual property in the context of transfer of renewable energy technologies may be defined to include as

i) the core technology or intellectual property, which may be formally registered or may be in the form of unregistered confidential information,

ii) the technical information, skills, and documentation essential to opertionalise the technology, and

iii) the knowledge and capacity to identify the factors in the environment that may affect the operationalisation of the technology.

The case studies described above indicate that the intellectual property content of several of renewable energy products and technologies may vary on a ‘Intellectual Property Continuum’, wherein, in its simplest form, it may contain non-proprietary information in the public domain or proprietary information in various combinations. The later may vary from simple to higher contents of IP, viz. from just confidential information or know – how, to one or more forms of registered intellectual property, or a combination of them (for example, one patent or a registered design or a trademark), to more higher or core technology IP combinations (for example, a portfolio of patents, designs, copyright, integrated circuits with respect to a single technology), several integrated technologies with further more complex IP combinations. The information required for operationalization of the technology and the operational context of the technology is a significant component of the technology transactions on this ‘Intellectual Property Continuum’. Even though a technology may be in the public domain yet there

may be a lack of information to operationalize the technology, which is an important IPR issue. In the context of transfer of technology, the concept of intellectual property is to be seen in consonance with the practical information available to operationalise the technology including the relevant information from its operational context for its successful implementation. On this intellectual property continuum, the fabric of intellectual discourse tend to move towards higher risk and uncertainty and involving more than one technological domains – complex intellectual property strategy.

For example, on this IP continuum, an innovative technology will be the one which has been field tested and applied at a site but lacks a long history of full-scale use. Information about its cost and how well it works may be insufficient to support prediction of its performance under a wide variety of operating conditions. An emerging technology will be the one which is undergoing R&D at the laboratory or bench scale level. In such a case, there are high uncertainties about the operational success of the technology and a lot more work may be required to establish it. Though it might be possible to transact business in such a technology yet it might require more developmental work before being considered for setting up a commercial establishment.

One may plot the variety of renewable energy products and technologies on this IP continuum. These technologies may be at different stages of development and may be characterized by low to high levels of IP and uncertaintities. Most frequent technology transactions take place for the proven technologies while in case of others with uncertaintities companies may enter into R&D collaborations and technology development agreements. The issues may thus vary in transactions of intellectual property in different context of the renewable energy products and technologies.

3.3 Intellectual Property Issues: company to company transfer of renewable energy technologies

The intellectual property rights issues to be considered while transferring renewable energy technologies depend upon the nature of the technology being transacted, its place on the intellectual property continuum and the specific mechanism of transfer of technology. The technology being transacted may be an established and proven technology — i.e. a technology for which cost and performance data is readily available, and has been in use at several different sites. Even though the technology may be proven, the intellectual property content of the technology may vary from simple IP to a higher end IP just as in solar lantern or solar module case studies described above. There may be a least uncertainty about success of such a technology. In its most simplest form, the transaction in technology may involve the practical know-how or confidential information to operationalise the technology, which the supplier of the technology may need to share with the buyer of the technology. In other forms of transfer of technology, it may involve more complex IP and IPR issues. In each of these cases, several IPR issues may have to be considered that are discussed below.

3.3.1 Sale or Assignment

The companies look to purchase intellectual property (including patents, designs, trademarks, software, trade secrets or other intangible items) to grow and support their business. The purchaser or assignee in an IP assignment or sale agreement takes total and exclusive ownership and control of the IP rights, and is free to use those rights. The transfers may occur on their own or as parts of larger asset of sales or purchases. Intellectual property assignment agreements both provide records of ownership and transfer, and protect the rights of all parties.

The foremost issue is to define the intellectual property being transferred. The buyer should carefully ascertain that the technology being bought in fact works under the local conditions of the buyer. Not only should the agreement include the definition of core technology but also the operational know-how and the confidential information for implementing the technology. The important issue for the buyer is to ensure the technical feasibility of the technology being purchased. Every possible effort has to be made to verify the technical feasibility of the technology. This can be done by verification of the data or by getting a prototype made, or visiting the plant of the seller or by any other means.

A clear record of the title of all intellectual property being purchased should be established. The buyer needs to ensure that the seller has title to the intellectual property being purchased. Each type of intellectual property may be subject to different registration requirements and transfer rules, additional steps may be needed to

formalize the transfer of individual items of intellectual property. The seller and the purchaser should discuss what intellectual property registrations have been made and how those registrations will need to be transferred and renewed. The purchaser should conduct searches at all relevant registry offices to make sure the seller actually has complete and unique rights in the offered property.

The intellectual property may also be sold by the sale of patent application (patent application number needs to be recorded). In such a case, an issue is the assessment of the potential value of the patent application and determination of its sales price. The issue for the buyer is to ensure that later when the patent is granted; it should be possible to register the same in the name of the company of the buyer. In fact in case of all intellectual property being transferred that should be possible to be registered in the name of the buyer at all such places where it might be already registered. A patent may have two or more joint owners. The sale or assignment in such a case is valid only when agreement is made with all the owners. The services of a professional may be hired to assist in the investigation: evaluating a patent registration, for example, may require a specialized understanding of patent office filings and applications.

The advantage of selling intellectual property outright is that the payment is guaranteed at the negotiated price between the seller and the purchaser. The seller should make it sure that selling all of rights in a piece of intellectual property is the best approach for his company.

3.3.2 Licensing of Technology or Intellectual Property

Generally, the licensing of technology concerns the licensing of a patent, wherein the owner of a patented invention or technology agrees to grant permission to the licensee to perform one or more of the ‘acts’, which are covered by the exclusive rights to the patented invention. These ‘acts’ include rights to authorize the licensee to prevent others from practicing i.e. making, selling, offering for sale, importing, distributing and using the inventions. In a number of countries, the patent law may require that an instrument of assignment of patent rights or a license contract may be registered with the national IP office. Thus, the Government recognizes the assignee or the licensee as the transferee or holder of the rights conferred by the license. The transfer of technology through licensing may also involve licensing of other forms of IP, e.g. design, trademark, copyrighted material, trade secret, or know-how.

However, for a successful commercialization of the technology, received through licensing, it is necessary that the licensee has the in-house capability to operationalise the same or obtain the assistance of the supplier. This kind of problem can be solved by developing an approach to intellectual property where technology transfers are made together with other management resources like capital, management know-how, or other core components of the technology. This may require separate negotiations for the technical fees associated with such transfer of information and the expertise.

The licensing of an IP implies the sharing of risks between the licensor and the licensee. A licensor licenses the right to manufacture and sell products, and in return receives revenues but he does not take the risk of manufacturing, promoting and selling those products. On the other hand, the licensee receives the rights to use the IP without investing in the research and development and meeting the costs of developing the product. Thus, on his part there is no expenses and risks. The buyer may sell its products or services more quickly by acquiring a license to use existing IP, instead of re-inventing the wheel. He may also obtain necessary expertise from the licensor, if the same is not available to him in-house. Although the buyer obtains an advantage over its competitors by acquiring the license yet he has to ensure that the IP being received is not too weak that a competitor could work round it and take away the market share. In such a case, it may not be worth investing in the IP and obtain the license [35].

The issues that are negotiated or agreed upon in a license agreement are called the "terms and conditions" of the agreement. For each such issue, there may be several possible variations as to how the issue can be resolved. The present discussions can not cover every conceivable issue or different circumstances, but the focus is only on some of the significant issues. These are discussed below.

Confidentiality

The confidentiality may be essential to obtain relevant information to know more about the technology and test the feasibility or developing a prototype. It may require certain sensitive data which may have to be shared between parties for this purpose. The intellectual property or confidential information owned by the supplier are shared with the buyer under confidentiality and is an issue which is to be carefully handled. The buyer has to agree to not to disclose any such confidential information and that the information shall be used only for the purpose it is being obtained. The confidentiality agreement enables to examine the technology and thereby make good judgments about its specific nature, function, performance, and value.

A know-how licensing agreement may be required to obtain the confidential information associated with the commercial installation of the technology. The key issues will be to maintain the confidentiality of such information for a certain period of time.

Defining IP explicitly

From the buyer's perspective, after assessing the needs and objectives of his business and taking of a decision to obtain the IP through a licensing arrangement, the foremost issue is to define the IP explicitly and clearly. This is also called defining the subject matter of the license. Many times this may sound obvious, but not doing so may give rise to disputes after the agreement has been signed. Is the technology that is to be used a product, a formula, a specification, a protocol, a software program, a set of diagrams or documentation? The issue may range in negotiating a narrow or a broad definition of the technology. It means finding out exactly what the technology is and

what part of it is needed to be used for business. It is common to refer to an exhibit attached to the agreement text for more specific references to the nature and definition of the subject matter (e.g. technology as more fully described in Exhibit A or the Annexure).

In addition, the defining of IP may also include a definition of what is meant by confidential information. Such a definition includes not only that which is disclosed to the recipient but any other information which it may receive or be made aware of as a consequence to the agreement. There will be an issue for the buyer to put in place procedures for restricting the use of such information for the purposes specified in the agreement and safeguarding it against disclosure. The licensor may like to ensure that such procedures are in place and may include the right of the licensor for verifying or auditing such procedures. The agreement may also provide for liability in the case of accidental or negligent disclosure of the information to third parties who are not subject to the provisions of the license agreement and who are not otherwise informed of the confidentiality of such information. It may spell out the exceptions to the obligation, such as if the information is publicly available, that is, it is already known or has become known to the recipient in a legitimate manner or if it had been independently developed by the recipient. It will be necessary to clarify as to how long the confidentiality provisions will continue after the termination of the agreement, which should also specify when the information should either be returned to the supplier or destroyed.

A common pitfall in license agreements is for the licensee to neglect to obtain all of the rights that are needed in order to utilize the technology. For example, the licensee might neglect to obtain a license to both the patent and copyright subject matter in a technology. Alternatively, a licensee may only obtain a license to a patent or group of patents, without obtaining a license to know-how and a related consulting and training inputs. Another pitfall is the failure to clearly identify the subject matter of the license. For example, the agreement may provide reference to the “XXX Technology” without quoting the patent number or attaching the patent specification giving a detailed description. Such pitfalls need to be avoided.

Verifying ownership of IP

From the perspective of the buyer, it is essential to verify that the licensor indeed owns the technology and all intellectual properties that are required to make the licensed technology work and are being transferred. The license agreement needs to contain a provision that the licensed IP belongs to the licensor either as an owner of particular IP or he has acquired those rights from the true owners. This will also include any confidential information or know-how. For this purpose, the search should be made by the buyer in all the relevant registers in the respective IP offices where respective IP might have been registered. It might be possible that the owner of IP may have received IP under license from someone else and, in turn, want to license that IP (as well as his own IP) to another business, for example, as part of a package of inter-related technology. In such case, the buyer should verify the ownership rights are duly owned by each party so involved in the process of transfer. In case of joint ownership of IP, the

buyer may need to ensure that the license includes statements of all the joint owners that they are the legal owners of IP and are willingly transferring the IP without any encumbrances. This avoids a situation where a third party later claims that it owns the IP or technology and the licensor attempts to disclaim responsibility.

The next issue is ensuring that the IP being licensed is valid, and the patent or any other registered kinds of IP may not be open to challenge. For the buyer, it may be essential to check whether the licensor has the right to transfer such an IP.

The buyer of the technology needs to take a decision on the use of the trademark in the product of the technology of the supplier. In that case, it will be necessary to specify what trademark and/or logos are required. This is important in cases where the technology or product alone is not as valuable as the product distributed with a familiar trademark. Similarly, a decision is to be taken on other rights to be acquired, viz. the right to use the industrial design, right to copy and distribute technical or other documentation related to the product or technology to users or others, training, know-how or consulting from the licensor. Whichever rights are to be covered should be the subject matter of the license.

Nature of rights

The specific types of license, that a buyer may desire or could be made available to him by the seller, vary from exclusive, sole or non-exclusive type of license. In case of exclusive license, the licensee can use the IP as he wishes, while the licensor is not entitled to use the IP. No other license can be given by the licensor. In case of a Sole license only the IP owner and licensee can use the IP. In case of a non-exclusive license the IP owner may use and also license to more than one licensee. The valuation of IP in each of this case will vary and a decision by the buyer may depend on his business strategy. The negotiations should clearly lead to an agreement on the type of license rights of the buyer.

Defining the scope

There may be different specific kinds of rights that are involved in an IP license depending on the needs of the buyer and seller. Some of these may include the right to reproduce the technology, to modify it i.e. to make new versions or entirely new products or technologies by modifying, to have it made (for manufacture by licensee or contractor), to distribute or sell it, to import it, and to sub-license it to another who can do any or all of the above. From IP perspective, the buyer has to work out exactly for what purpose the rights are required and how useful will these be for his business. The exact scope of the IP being licensed has to be delineated.

The exclusivity of the grant rights may be made dependant on the licensee achieving certain minimum royalty payments or product sales and its term may be different from that of the agreement. Further, different kinds of IP will have different types of rights. For

example, a patent right may be applicable for twenty years while a copyright may be available for longer period.

Rights to future improvements

One of an important issue for the buyer is future improvement that may be made in the technological features and the technologies being licensed. The improvements may come from either the supplier or from the buyer. In either case, the buyer should have broad rights to new variations, improvements, and related technologies. This is necessary for the buyer because the improvements made by the supplier may be made available to the buyer's competitor or the improvement carried out by the supplier may render the already licensed technology or product obsolete soon after the buyer made an investment in it. However, the price for such improvements may not be possible to fix in advance but in principle, it may be worked out later on reasonable terms.

There is also an issue of the identifications of the improvements being made, by whom and their ownership. It may be useful to define what will constitute the improvement and will be part of the agreement. This should not be a major problem when the supplier is in the commercial production and is involved in ongoing research and development, which may be with the participation of the buyer. In such a case, if the improvements lead to some patentable inventions both the supplier and the buyer keep the first right to obtain the license to these improvements by another party, viz. buyer or the seller, which may be on reasonable commercial terms. The two parties should agree to establish an arrangement wherein each party shall keep the other informed of, and shall have the right to use on a royalty-free basis, all improvements made to the licensed technology. The licensor may have the right to sub-license the licensee's improvements to its other licensees outside the territory of the buyer.

Duration and termination

This is an important issue for the transaction in intellectual property. The buyer needs to check on the duration of the license, which should not last beyond the maximum period of the protection for each of the specific type of IP being licensed. For example, of the licensed patents, each one may have a different term implying some patents may be expiring earlier than others. The term of the patent license could not be more than the term of any patent that is expiring last. A trademark agreement might be for five years, extended automatically for the same period, unless one of the parties gave prior written notice of its termination. The buyer may have to examine the need for extending the term on the basis of its investment in infrastructure necessary for exploitation of the intellectual property. The duration of the agreement may also depend upon the nature of specific technologies and their market competitivity.

The related issue is to consider the kinds of IP rights or obligations that will remain after the termination of the licensing agreement, the circumstances for which must be agreed

and put into the agreement. For example, it should include the buyer's rights to continue to use the confidential information shared during the operative phase of the agreement.

Documentation, know-how, consulting, training and support

There may be several types of supports that may be needed by the buyer to operationalise the technology. The buyer should always have the confidence to work the technology being acquired and face the necessary challenges in the process, which may also include the issue of service, and support to make the technology work in the local environment of the buyer. The buyer should negotiate for such risks associated with the implementation of the technology. The negotiation will generally depend upon the capacity of the buyer, his understanding of the IP being obtained, alternatives to obtain any such support other than the supplier, and the overall financial implications of the support.

Specific nature of support may also depend upon the kind of technology being transferred–whether it is low end IP or high end IP. This may include the non-proprietary information in terms of know-how, training and consulting to make the technology or product practically useful and functional. It may be important to determine during negotiations about the kinds of information that may be needed by the buyer, which may be in the form of documentation or materials that may help an understanding of how to use the technology, the know-how of the supplier in order to exploit the technology, the need to allow the personnel of the supplier to work with employees of the buyer, or the training of the employees of the buyer by the supplier. The supplier may also share the changes in the operational context of the technology being supplied and educate the buyer to minimize their impact on his business by using any of such methods. Thus, the agreement should provide for the licensee to obtain technical assistance in the form of documentation, data and expertise for operationalisation of the technology.

Royalties

Royalties are regular payments to the licensor, which reflect the use of the technology by the licensee and may also be a good reflection of the value of the technology to the licensee. The key issues which need to be considered are determination of the quantum of payment and the mode of payment. For example, the payment of lump sum or one off fee, or payment of a fee based on the use or items manufactured or sold (sometimes called a royalty on sales) or a combination of these two.

Lump sums

The lump sum payment may include the one time payment which may be paid at the time of signing of the agreement. In such a case, a license would be considered a fully-paid-up license. On the other hand, there could be a series of lump sums payments that may be payable on the occurrence of specific milestones in the installation of the

manufacturing plant or transfer of the technology. Such payments might be time-based. The payments could also be performance-based, such as on the disclosure of confidential information, supply of details of engineering designs, or on the commencement of commercial production.

Royalty rates

Royalties have two key components: the royalty base and the royalty rate. The determination of royalty base and the royalty rates are the twin key issues. The most common royalty base is the licensee's sales. This could be the number of units of the licensed product sold with the licensee paying a fixed amount per unit. Alternatively, the royalty base could be the net sales receipts of the licensee [36].

The negotiation of the royalty rate is fundamental to the success of the agreement. One possible alternative is that the royalty rate may reduce as the volume increases or time passes. For example, a royalty rate of 10% might reduce to 7.5% after the sale of one million units, then to 5% after five million units and so on. This might be on an annual or a cumulative basis. The reverse is also possible, with the royalty rate increasing as the volume increases. The reverse approach imposes lower royalty costs on the licensee at the beginning while the technology is being introduced and sales are low and increases them as market share is gained.

Performance, warranties and indemnities

These issues include the financial risk of a product or technology defect, risk of a defect in title to the product or technology, risk that a third party will bring a legal action claiming that the technology or product infringes his patent or other IP. From the licensee's perspective, all such risk should be the responsibility of the seller, who is in a better position to handle such issues.

Infringement

It is important to provide for what will happen if there is any infringement. There are two situations where infringement could occur. The first is where a third party is using the protected technology but does not have a license. Here the licensee is facing competition and is likely to be at a financial disadvantage as the infringing competitor is not paying royalties. The second infringement situation is where a third party claims that the licensee is using technology in respect of which the third party has obtained protection [37]. In both situations, it should be the responsibility of the licensor to deal with the infringement. The licensee may have to cooperate with the licensor in dealing with the infringement.

3.3.3 IPR issues in Joint Venture (JV)

The joint venture is one of the ways for bringing together technology companies wishing to tap each other's intellectual property assets, often allowing these parties to reach new markets or expand existing relationships. Most renewable energy technologies may be

shared through a joint venture e.g. setting up of manufacturing plant for solar panels or modules or photovoltaic cell, ingots or wafers or solar farms or wind mills. In a joint venture, each of the joint venture parties contributes something of value to a newly formed entity, one designed to oversee the new business endeavor. Such an arrangement allows multiple parties access to pooled capital, technical, management and intellectual property (IP) resources to achieve profits and growth through synergies.

Relationship of trust

For a successful JV, it is necessary that there is a relationship of trust between the parties, who are honest with each other about their strategic plans in order to establish the joint venture business and the proposed relationship. Since the setting up of the joint venture will involve sharing of proprietary and non-proprietary information between the contributing parties, a relationship of trust will go a long way in assuring each party that its contributed IP shall not be lost to it. However, it should be agreed at the outset how to deal with relevant IP rights at each key stage of the JV or collaboration, viz. the pre-formation stage, the formation stage, the duration stage and the termination stage [38]. These are discussed below.

Confidentiality, due diligence and structural formations.

The pre-formation stage is the stage before the parties sign the legal documentation for establishing the joint venture. The IPR issues relate to the confidentiality, due diligence and structural formations. Sharing of information may be required for assessing the significance of IP to the joint venture, verification of its technical feasibility and ownership. This stage of the relationship raises issues surrounding the protection of existing or the background intellectual property being contributed by each party, including confidential information. A thorough due diligence is a necessary pre-requisite for each party to be aware of exactly what it is contributing to the venture. All coventurers need to conduct thorough due-diligence IP investigations in order to evaluate a fellow co-venturer's copyright, trademark, trade secret or patent assets. Whether a co-venturer owns IP rights or has it secured them by license? The rights are valuable to the joint venture only if the co-venturer can demonstrate that all requirements of ownership and licensing have been maintained and its right to assign or license is in place. The due diligence is also significant for putting value to the contributions of IP by the co-venturers – existing or background rights and paying the proportionate amount to them. The validity, scope, and protection of such rights have to be verified. The parties joining the JV have to ensure that the IP being contributed do not infringe the rights of the third parties.

The parties need to be careful to protect any information they may need to share during this stage of the negotiations. The loss of background IP rights is a possible risk in joint venture collaborations, which needs to be minimized. It may be comparatively easy to share the IP with the new joint venture company under the non-disclosure agreement. The agreement may require that information is only to be used for the purposes of negotiating the formation of the JV and that it will not be shared with any third parties.

The scope of such sharing should be such that it enables the joint venture to carry out its business without any hindrances. The parties forming a joint venture should respect that any confidential information, a party shares during the course of negotiations should not be used to the advantage of one of its competitors.

The decision to operate a JV using a particular corporate structure may significantly influence its success. The influence of issues relating to IP rights on such structural decisions are predominantly tax considerations. For example, the parties may wish to minimize the tax paid when valuable IP rights are exploited and/or transferred. The parties have to be careful that the proposed joint venture does not have the effect of reducing the competition.

Assignment, licensing, the terms of transfer, and valuation of IP

The IPR issues in the next formation stage relate to the assignment and licensing of existing rights; the terms of transfer; and the valuation of IP contributions. The background rights may be contributed by way of a sub-license or assignment. The parties may also consider whether to contribute the related rights like the know-how attached to the operationalisation of patented inventions. The important point to be considered by the parties is that the assignment of an IP once made could be difficult to be transferred back, in the event that the assigning party requires use of the same IP rights. However, one may opt for an immediate licenceback as a condition of the assignment.

A co-venturer who contributes IP assets and rights to a joint venture is in the unusual position of being both a transferor and a transferee. As transferor, a party is interested in transferring to the joint venture enough of its IP assets as will allow the joint venture to succeed, but not so much that it loses ultimate control of its IP portfolio or exposes the portfolio to unreasonable risk. On the other hand, as a principal to the joint venture, a transferee is interested in seeing that the joint venture captures as much underlying IP as possible, increasing the venture's chances for success. Thus, the dual roles played by a co-venturer who contributes underlying IP to the joint venture requires that all joint venture agreements and transfer documents be drafted with as much detail, and as little ambiguity, as possible.

The licensor may wish to limit the scope of the license to a particular field of use that is within the scope of the JV or to a particular territory. The broader the scope, the more valuable the license will be to the joint venture licensee. The parties should be clear on how the underlying IP will be used by the joint venture licensee and what rights will be retained by the co-venturer licensor.

The territory of the license determines in which jurisdictions the grant of underlying IP rights are valid. These should be consistent with the territory of the joint venture itself. However, the territorial reaches of specific types of underlying IP contributed by the co-venturers and that of the joint venture may be different. For example, a trademark and copyright protections may have global protection while the protection in case of a patent

is largely national in scope. In order to cover the protection to the territories synonymous to that of a joint venture, a review may have to be taken where all the added protection has to be sought. The contributing co-venturer should provide the necessary help in this regard.

The co-venturer licensor can grant its IP rights exclusively, solely or non-exclusively to the joint venture. For the joint venture licensee who is investing heavily in the venture's success, the co-venturer licensor's grant of exclusive IP and technology rights solidifies a competitive advantage to the joint venture against all unlicensed third parties. Moreover, exclusivity ensures that the co-venturer licensor cannot use the licensed IP rights to compete against the joint venture. Conversely, for the co-venturer licensor, there is a risk that, by granting an exclusive license to the joint venture, the co-venturer is precluded from exploiting its IP rights in other markets.

Closely related to a license's exclusivity clause is an agreement that expressly defines competitive issues for the parties brought together in a technology joint venture. The concern here is that the joint venture should not be undercut by potential competition between co-venturers, between co-venturers and the joint venture, between co-venturers and third parties, or between the joint venture and third parties.

The term of the license need not be longer than the term of the respective underlying IP rights being transferred in the license. For example, a licensor may not be able to charge royalties for use of a patent beyond expiration of the patent term. On the other hand, a license to use a trademark could continue indefinitely, provided the mark's registration requirements are maintained.

There is an issue of valuation of IP being contributed by the parties. The parties contributing to the joint venture should agree of how to value contributed IP rights, and how and when any consideration will be paid.

Maintenance and protection of rights

The significant IPR issue during the execution stage of a JV is to define the ownership of IP rights developed in the course of the JV. Such rights may be developed by either or both partners and are referred to as ‘foreground rights’. The parties must consider who will have the rights to exploit those rights, and make arrangements for their management and maintenance. The parties should initially agree a procedure for determining whether, and on what terms, such rights will be contributed. If the ownership of foreground rights is not addressed in the JV agreements, it will be determined on the basis that the inventors or creators of rights are the first owners. If foreground rights are created jointly by parties to the JV, those rights will be jointly owned.

The collaborating parties may also agree that the party contributing the most (whether in cash, background rights, personnel, or plant) to the collaboration will own the bulk of any foreground rights that result from that investment. In other cases, the party with

greater experience in managing IP rights, or whose existing background rights best complement the foreground rights, might take ownership. In a fully functional JV, the JV company will typically own all foreground rights. In order to exploit foreground rights, the relevant party or parties must either own all the necessary foreground rights or must have adequate licensing arrangements in place. Further, the party that will exploit the relevant foreground rights may require background rights to be cross-licensed to it by the other party (or JV company) so that it can use them in conjunction with the foreground rights. Both the foreground rights as well as the background rights require proper management, including the filing of applications for registration, the maintenance of registrations, and the prosecution of actions against infringers. The JV or collaboration agreement should allocate responsibility for these roles to the respective collaborating parties or the JV company itself may take the responsibility. The expense of maintaining and enforcing IP rights may also be shared accordingly.

An active monitoring programme should identify infringing acts before the decision to take action is made. It should therefore be established which party will be responsible for the monitoring of which rights and take appropriate actions. As well as entailing specific obligations on the parties, the maintenance and protection of rights may also require broader agreement on the implementation of proper procedures for the protection of trade secrets, know-how, and other confidential information and the parties should put in place appropriate procedures for limiting the dissemination of confidential information.

JVs may operate under one or more trade marks. Often the mark(s) will be a derivative of the marks owned and used by the parties to the JV or collaboration, or marks may be created solely for the purpose of the JV. If existing trade marks (whether unregistered or registered) are to be contributed to the JV, considerations similar to those for other background rights arise on payment of the considerations and its protection.

Joint ownership

Joint ownership of IP rights exists when two or more parties share in an interest in that property. This might arise when two or more parties create those rights jointly. The issues will involve the rights of individual owners in exploiting the patent or IP. The right of each of the owners to exploit jointly owned rights should be clearly established from the outset. Of particular importance will be an agreement on how one joint owner compensates the other in respect of its exploitation of the jointly owned property, normally by way of some form of royalty or other payment. The responsibility of each joint owner should be clearly identified with respect to the filing for protection of respective rights and their maintenance. A lack of clearly defined responsibility may lead to uncertainty and confusion over who is responsible for protecting jointly owned rights, which can in turn lead to those rights being vulnerable to infringers.

If foreground rights are to be held jointly, whether because they have been created jointly or by transfer, the proportion and manner in which those rights are held should be clearly stated in the agreement. It may be appropriate to provide that jointly owned

rights are held in ‘equal undivided shares’. Most collaborations adopt one of two basic principles for foreground rights: i. the ‘inventorship’ approach provides that rights will be owned by the creators or inventors of those rights; or ii. the ‘technology’ approach provides that rights are allocated between the parties with reference to a pre-defined technological scope or field to which each is entitled.

Termination of the agreement

The joint venture agreement should address how the venture will be terminated and what are the implications for any assets developed during its life. Typically, the co-venturers might wind up the venture on mutual agreement. If there is no mutual agreement, there can be various other exit-strategy mechanisms (e.g., failure of the technology, failure to remain competitive or failure to achieve the venture's objectives or business plan). In the event of termination, one of the most complicated issues is what happens to the venture's assets. The assets of many technology joint ventures may be IP and, therefore, intangible or difficult to evaluate. One of the possible way outs could be to develop cross-licensing provisions, which gives each party equivalent IP rights upon termination. Another possibility is to allow the parties the opportunity to purchase exclusive or non-exclusive IP rights from the venture. In order to avoid competing claims, the parties should agree who will own and who will have the right to exploit both the foreground rights and the background rights, considering what continuing arrangements might be appropriate (e.g. cross-licensing). Sometimes the fair position on termination is easy to determine. For example, trade marks used by the JV normally automatically revert to the licensor.

The parties should also consider whether it is appropriate to require representations, warranties, and/or indemnities in respect of the assets contributed, as would be expected in a normal, commercial or corporate transaction. However, the contributor may give some commitments, such as a non-infringement indemnity or warranties on title.

3.3.4 Transfer of know-how

Transfer of know-how is another method for the transfer and acquisition of technology. The provisions concerning know-how in a document may be included as part of a license contract or separate from a license contract. The intangible assets such as know how and trade secrets are easily shared, and are difficult to be categorized into proprietary and non-proprietary knowledge. Many times, the business and technical people discuss naturally as to how a particular technology works, or the reasons why one technology will outperform another in the marketplace. These conversations may inappropriately divulge proprietary information. It is necessary that such information is appropriately protected during the process of transfer of know-how.

The key issue from the seller’s perspective is that the know-how to be communicated by the supplier to the recipient might be disclosed, accidentally or otherwise, to third persons. The provisions concerning know-how in the contract will thus cover various

measures to safeguard against the disclosure of the know-how to unauthorized persons. This could be done by inserting a confidentiality provision in the agreement binding the purchaser that it shall not reveal the know-how to any person other than its employees who will be bound by the agreement on confidentiality with the buying company. In the initial stages, the know-how may be shared in the form of Non-disclosure agreement, where the purpose is to share as much information as is necessary to allow the receiver to make the next go-no go decision.

The agreement should determine clearly what confidential information is being disclosed, rights of the seller and the buyer in utilizing the disclosed information, and the duration of confidentiality. The buyer should ensure and agree that the seller is the true owner of the know-how. The seller should duly demonstrate the know how to the buyer and also train its employees to work with the technological know-how. The rights to improvements and modifications may be an issue to which both the parties need to settle between themselves. The right generally belong to the purchaser, if he has the technological competence to further make use of them to improve the technological know how or the product efficiency. Alternatively, the rights may be passed on to the seller, who may necessarily make the improvements in the know-how and provide royalty free access to the purchaser. The seller needs to ensure that the royalty conditions are appropriate to protect its rights and that the purchaser meets all necessary responsibilities for making the payments at due time.

3.3.5 Mergers & Acquisitions (M&A) of corporations possessing technological capabilities

The companies may purchase other companies, through M&A, possessing the required technology to achieve the aim of securing technology competitiveness rather than choosing the licensing or individual strategies to obtain technology. This strategy combines the technology, related equipment, technical personnel, and other assets all into one. This kind of technology transfer through sales & purchase of companies may be chosen where the speed of technology development (change) may be very fast or the life cycle of related technology & products short.

The foremost issue while buying a company is to conduct the due diligence on the target company. It means examining all aspects of a company including manufacturing, financial, legal, tax, IT systems, labour issues, checking for regulatory issues, as well as understanding issues related to IPR, the environment and other factors. Legal due diligence covers contractual documentation, litigation, ownership of movable, fixed and intangible assets like IPR, etc. How much and what types of intangible assets are held by the target company? For example, technology related intangible assets will include patent rights, while marketing will include trademark as the intangible asset. R&D can be recognized separately and its value assessed. The contribution of the patented technology to the contribution of profit of the target company may be assessed. The next issue is to value the IP in e.g. trademark, design rights, technology protected by patents, in-process R&D, and the goodwill factor.

3.3.6 Cross licensing strategy

Cross licensing is the mutual exchange of specific licenses between relevant parties. For example, the company A provides a license to company B for the use of its technology and simultaneously receives a license for the use of company B's technology, and this becomes a mutual execution (cross execution). The fundamental background for seeking cross licenses is for economic reasons whereby time and costs can be significantly reduced by borrowing each other's technology rather than developing and possessing it as technology becomes more integrated, combined, and advanced.

The core issue here is to consider how the technology or patents will be exchanged while planning, analyzing, and executing cross license contracts. In using exchanged technology, the economic value of the technology of both parties is the core issue. If the economic value of the technology of both parties is identical, licenses can be exchanged without cost, but if the technology value of any one party is greater than the other, one party must compensate the other for the difference. Further, there are no problems if the patents of both parties are in existence for the same period of time, but if the effective period of the patent of any one party expires first, there is a need to specify a condition beforehand to compensate the party which incurs loss in economic value due to the termination of the patent.

3.3.7 Acquisition of equipment and capital goods

The commercial transfer and acquisition of technology can also take place with the sale and purchase of equipment and capital goods. Examples of capital equipment are machinery and tools needed tor the manufacture of products or the application of a process. These may include machinery and equipment for the manufacture of semiconductor materials, photovoltaic cells and wafers, solar panels or modules, lamination, aluminum frames, wind mills or turbines. In certain instances, the provisions concerning the sale and purchase of equipment may also be found in the technology or know- how license.

In essence, the entire IP is embedded into the capital goods or equipment. The key IPR issue is the ownership of IP. Who owns the IP in the equipment or goods being supplied? Mainly, the IP is owned by the supplier or associated third parties. The buyer may only be asked to take the responsibility to protect the IP, its confidentiality and may have to sign confidentiality and or protection agreements with the third parties, in addition to the supplier.

The prime concern of the buyer is to seek the maintenance support, training and training material and support in the installation of the equipment at no additional cost to the buyer, at buyer's facility. The buyer shall not be made responsible for any infringement arising out of the IP embedded in the equipment and in the event any such situation arises, the expenses to defend the infringement shall be borne by the seller. In case the buyer has provided any IP to the seller to get the equipment custom designed

for itself, the same shall be held by the seller in confidentiality and used only for the purpose for which it was given by the buyer.

The seller may make available to the buyer the pricing information, system design and package information, and other such material which is proprietary information of the Seller. The buyer shall keep all such information confidential and shall use it as directed by the Seller.

3.3.8 Consultant Arrangements

The help of an individual consultant or a firm of consultants that will give advice and render other services concerning the planning for, and the actual acquisition of, a given technology can be useful for a company buying a technology. In such a business arrangement, the buyer gets the help in acquiring the technology. Also, the buyer may get the experience and the lessons by engaging and working with the individual consultant or firm of consultants. Such an experience is valuable knowledge for the buyer that can serve to better carry out future projects.

The consultant should be engaged by the Company as an independent contractor without employment implications on the company. The duties and responsibilities of the consultant should be clearly described in the agreement. The engagement of the consultant should be on a non-exclusive basis, and as such, the Company should be free to engage other independent contractors to perform identical services to those being performed by the Consultant.

The key IPR issues are to maintain confidentiality on the part of the consultant, and his agreeing to relinquish all right, title, and interest in and to any idea or any innovation, design, drawing, character or other work product, and all copyrights, patents, trademarks and trade names which were or are developed or created in whole or in part by Consultant at any time. Further, the consultant may provide to the purchaser several proprietary information on the basic design and engineering. The same shall have to be kept confidential by the purchaser under the main licensing agreement.

3.3.9 Franchise

Commercial transfer of technology may also take place in connection with the system of franchising of goods and services. A franchise or distributorship is a business arrangement whereby the reputation, technical information and expertise of one party are combined with the investment of another party for the purpose of selling goods or rendering services directly to the consumer. The outlet for the marketing of such goods and services is usually based on a trademark or service mark or a trade name and a special décor (the “look”) or design of the premises. The license of such a mark or name by its owner is normally combined with the supply by that owner of know-how in some form, either technical information, technical services, technical assistance or

management services concerning production, marketing, maintenance and administration.

In the typical franchising relationship, the franchisee shares the risk of expanding the market share of the franchisor by committing its capital and resources to the development of satellite locations modeled after the proprietary business format of the franchisor. A distinctive and protected trade identity of a franchisee includes registered trademarks as well as a uniform trade appearance, signage, slogans, trade dress, and overall image. This may include proprietary and proven methods of operation and management that can be reduced to writing in a comprehensive operations manual, not be too easily duplicated by competitors, maintain their value to the franchisees over an extended period of time, and be enforced through clearly drafted and objective quality control standards. The main issue for the franchisee is the Brand value, which needs to be understood and negotiated.

The franchisee is given the right to distribute goods or services under the franchisor's trademark or service mark. It may call for the use of the franchisor's confidential operating manuals or forms by the franchisee, and mutual opportunity of profit. If the franchisor claims proprietary rights in confidential information or trade secrets, it must disclose the general subject matter of its proprietary rights and the terms and conditions under which they may be used by the franchisee.

3.4 Intellectual Property Issues: R&D to company transfer of technologies

In order to gain access to a technology a company may (a) obtain it from outside parties via license/purchase, (b) develop the technology internally or (c) obtain it through transfer from R&D institutions. In case the technology is developed trough internal or external R&D, two main actors involved are researchers who undertake R&D work in specific fields of technology and are technology suppliers; and companies and entrepreneurs who undertake the manufacturing and are technology buyers. Researchers as generators of knowledge and technology are required to protect their intellectual property in order to derive benefits for themselves and their employing R&D institutions. Industrialists who acquire the rights on intellectual property from researchers need adequate intellectual property protection so that they are able to recover the costs incurred in acquiring technology i.e. the R&D costs. IPR issues are amongst many other factors that are required to be managed during the negotiations and the process of technology transfer.

3.4.1 Managing IP issues in R&D

The first set of IPR issues concern the protection of IP during the process of research at the R&D. To an individual inventor with limited financial resources the protection may mostly mean obtaining a patent or publishing a paper. For organized R&D, as a policy it may mean obtaining the maximum benefits, which will imply putting in place various mechanisms and systems of protection of IP during the entire process of research from the original conception to the obtaining of patents and licensing of technology.

The key aspects in the protection of IP are strengthening awareness about IPR at the bench level scientists, recognition of the need for taking patents, taking a decision whether to file a patent or use any other means for the protection, taking a decision when to take a patent, ownership of IP, disclosure of the invention, making a patent application, protection of confidential R&D information and know -how, eemployee's ownership rights as inventor *vis-à-vis* rights of employers, principles of sharing IPR during collaborative R&D, basis of naming of inventors / co – inventors, establishment of a good system of keeping records of research, negotiating IP during the commercial exploitation, and incentives for scientists [39, 40]. These are described below.

3.4.2 Recognition of patentability

The prime motivation to consider whether an invention or research is worth pursuing for a patent or not comes normally from the working scientist. Scientist should foremost apply their intuition to think about the practical applications of their work. The key questions to be asked are: whether a significant advantage is to be gained by using the new invention? Does it provide obvious advantages over the existing ones to allow for a

fair price and profit? Alternatively, assistance may be sought from patent experts or those scientists having experience with patenting who may examine the research being done to explore the potential of an invention for patentability.

3.4.3 Whether a patent should be taken

A patent means disclosure of information to the general public. A careful examination of pros and cons is essential before filing for a patent application. Other options i.e. to keep the invention as a trade secret or confidential should also be explored. One may also explore the specific features of the invention that can be protected by one or more patents.

3.4.4 When to take a patent

Generally, as soon as one has all the necessary information required for drafting the patent application, one should go in for taking a patent. This is advantageous as it ensures the first to file an application and, moreover, it is useful for seeking financial support or considering license of the invention to commercialize it.

3.4.5 Disclosure of invention

The researchers should disclose the invention as soon as it is recognized that it is essential to protect the invention either through a patent or by other means. This should formally be done on an Invention Disclosure Form. The disclosure should be made before making a publication. On disclosure of the invention, the institute shall assess its commercial potential, and if found worthwhile, steps will be initiated to seek protection of the IP.

3.4.6 Filing a patent application

Normally, scientists and researchers are deeply involved in their scientific research and development and may not be fully equipped to deal with the legal issues involved in the protection of their inventions. In such a situation, it is advisable that assistance is sought from the legal experts or patent agents in the preparation, filing and processing of patent application for the grant of patents. One has to consider whether a patent application is to be filed in other countries?

3.4.7 Ownership of IP

The IP rights are owned by the inventor/author of the work. However, if the work is created by an employee "in the course of his employment", the right tends to belong to the employer. Though this is the general practice, in some countries, the prevailing national law may not assign the rights to the employers for inventions created by employees outside the scope of their employment duties.

Independent contractors or consultants may be associated with certain R&D projects, wherein a specific provision may be made in the contract about the ownership, rights to use and the rights to exploit the IP in the works created. The standard practice is to

assign all rights arising out of or in the course of the work they perform to the R&D institution as soon as the work gets created.

3.4.8 Managing confidentiality

Scientists, besides, sharing new ideas and information through publications, keep know-how and a large amount of technical information confidential. Such information may include unpatented and perhaps unpatentable technical know - how that gets accumulated while working with technology during various stages from R&D to commercialisation and its transfer. It is the ability to retain this non-patentable information confidential that enables R&D organisations ahead of competitors. Even for the patentable inventions, it is essential that the novel features of the invention are kept confidential till filing of the patent application. In R&D organisations, it would be desirable to recognise the confidentiality of the R&D information and develop mechanisms and skills for its protection.

Employee confidentiality: In service and after service protection of IP

Every employee owes the employer an obligation to act in good faith during the period of employment even though nothing may be expressly agreed, orally or in writing. They have an implied duty not to use trade secrets or “know how” in a way that would harm the employer’s business. However, it is a good practice to put this in writing and to specify to the employee (through their terms and conditions of employment) exactly what is "confidential information". The confidentiality provisions must also ensure that the information remains confidential when the employee leaves the business.

One of the terms and conditions of employment of researchers in research institutions should be that any IP generated from the research work in the institute shall be assigned to the employing R&D organisation. No investigator shall make commercial use of the results of his work, whether by patent or otherwise, unless permitted to do so. The Employer R&D organisation reserves the right to determine after consultation with the investigator and any other person, whether any patent shall be taken out and what commercial use shall be made of any results of the investigations, and on what condition. All inventions made by employees shall, until a period of three years from the date of the termination of the services of the R&D employee be the property of the employer R&D organisation — to be kept in trust for the employer [41, 42].

3.4.9 Collaborative R&D projects: sharing of IP

In a collaborative R&D arrangement there is a substantial involvement of both the collaborators in making contribution to the technical aspects of the effort. The key IPR issues to be considered during R&D collaboration are pre-existing rights that are contributed by each collaborating partners, and the rights to the amendments and or improvements or creation of new intellectual property during the course of collaboration. In case of the pre-existing rights, a proper record is to be maintained of the pre-existing IP contributed by the collaborating party. None of the collaborating party can use such IP for its own purpose without the explicit permission of the holder of the rights. If any IP created during the collaboration has used pre-existing rights, then, for its exploitation, a

license shall have to be taken from the owner of the rights for utilizing such rights in the new IP created.

The following principles in general shall determine the ownership of the new IP created during the collaboration [43]. In principle, the intellectual property is to be jointly owned by the collaborating S&T institutions. The resulting benefits are to be equally shared or jointly owned. In a joint invention, If a party elects not to take title or fails to obtain a patent on its Subject Invention, the other party may do so. Alternatively, the benefits are shared in proportionate to the inputs of the collaborating parties. In case of research contracted out by companies, the principal purpose of a contract is to acquire the research inputs as a direct input in well - defined programmes and missions of the company giving the contract. Normally, both tangible and intangible intellectual property are to be wholly-owned by the giver of the money/ funds, viz. the company; but the recipient of the money may have royalty -free license for his non - commercial and academic use. The sponsor of research to the R&D institution recognizes that the results of research may be publishable and agrees that researchers at the R&D may be permitted to present the results at symposia, or seminars and to publish in journals provided a copy of the same may be made available to the sponsor in advance, to evaluate if the publication involves any proprietary information of the sponsor. In such a case, the sponsor may require the publication to be delayed until the patent application is filed.

The third mode of doing collaborative R&D is at the instance of grant giving agencies. One of the purposes of a grant is to accomplish given objective through stimulating or supporting the acquisition of knowledge or understanding of the subject or phenomena under study. In such a case, both tangible and intangible property are to be wholly - owned by recipient of money; but the donor of money may have royalty -free license for his own use.

3.4.10 Basis of naming of inventors

The naming of inventors /co-inventors is important. Firstly, to recognize and reward the true inventors for their contributions, and secondly, to establish their right for a share in the subsequent commercial benefits that may result from the exploitation of the invention [44]. All those persons who contribute towards the development of patentable features of an invention should be named as inventor (s) / co-inventor (s). A person who has merely assisted in the execution of an invention without having contributed any inventive activity shall not be deemed to be an inventor. The person who furnishes idea needed to produce the “germ of the invention”, may be included as inventor, although he need not himself carry out the experiments, construct the apparatus with his own hands or make drawings or models himself.

3.4.11 Maintaining records of research

It is essential that all scientists doing research and development work should keep a clear and proper records of research of the daily work done by them. Records are to be kept from the stage of first getting an idea up to the end of the research project.

3.4.12 Commercializing patented technology

A patent on its own is no guarantee of commercial success. It needs to be exploited effectively in the market [45,46]. In order to take a patented invention to market, there are a range of options including

- Commercializing the patented invention directly
- Selling the patent to someone else
- Licensing the patent to others
- Establishing a joint venture or other strategic alliance with others having complementary assets.
- Promoting innovation through startups

Of these, the creation of spinout and start-up companies is increasingly being encouraged as a means of maximizing the benefits of IPR. In most cases, some of the scientific personnel involved in the creation of such technology leave the R&D organisation and join the new company, affecting thereby the technology transfer. The IP rights facilitate such start-ups to obtain venture capital.

Most R&D institutes publicise the laboratory scale technology available for transfer and once an entrepreneur is identified and tied up, it is licensed against a license fee and sometimes includes a recurring royalty payment. The development is generally demonstrated on the laboratories scale and the entrepreneur takes the risks of up scaling and developing it at the commercial stage. The amount of license fee is nominal as the state of development is raw and does not find takers at higher amounts. The key IPR issues are sharing of benefits resulting from the exploitation of IP, which will be similar to licensing of IP if the technology is exploited by licensing.

IP issues in licensing of patent

The R&D organisations may transfer the patent rights to another party by licensing [47]. The patent rights may be licensed before developing the technology to the production stage. The license may be granted on exclusive, sole or non-exclusive basis. There are several options that may be considered. Whether the industrial property rights alone are being licensed or know-how or technical information related to inventions or industrial designs are also to be provided. In the former case, reference is usually made to given patents or applications or to a specified industrial design that delineates the scope of the basic technology.

In case of the ownership of the technological advances, the issue is whether the technological advances subsequently made or acquired by one or both of the parties should come within the scope of the industrial property license? If so, the terms and conditions of transfer should be delineated, including the availability of the technological advances for the benefit of one or the other or both of the parties or of third persons. This

transfer may be on a reciprocal basis or non-reciprocal basis. It should also indicate the duration, territories, additional price, if any, and further steps that should be followed to secure their legal protection. The renewal fees for the patent are to be paid by the patentee - licensor. In case, the patentee does not wish to keep in force the patent, an opportunity to be given to the licensee to take the assignment of the patent, normally for a nominal consideration.

The parties may decide to share mutual exchange of information on improvements and developments. Another possible settlement on this issue could be that each party shall be free to exploit, on a non-remunerative basis, the technological advance of the other, but that if either makes available that advance to third persons on a remuneration then the other party shall be entitled to share in that remuneration in some agreed manner and amount.

It may be advisable to involve the user from an early stage in the R&D project, say, from the conception stage itself, with a view to ensure the exploitability of the invention. The potential licensee may require certain information to carry out feasibility study within a certain period of time based on the disclosed information in order to decide whether or not a license agreement is to be concluded. The owner of the technology, viz. The R&D institution should disclose such information to the potential licensee on secrecy basis. Maintaining a patent in force requires payment of annual fees.

An assignment of a patent or of a share in a patent, a mortgage, licence or the creation of any other interest in a patent shall not be valid unless the same were in writing and the agreement between the parties concerned is reduced to the form of a document embodying all the terms and conditions governing their rights and obligations and the application for registration of such document is filed in the prescribed manner with the IP office.

3.4.13 Incentives for scientists

The royalties earned as a result of the commercialization of research and technology are generally shared with the scientists. The guidelines for sharing may vary. In a government R&D agency, for example, forty percent of the monies realized from licensing of the intellectual property developed may be shared with the innovators and the principal contributors. Sixty percent is retained by the organisation. Of the forty percent, scientists and other staff who contribute direct inputs to the specific development/ activity receive thirty-five percent. The balance is shared with other staff members. In some cases, the earnings are ploughed back as R&D grant to the scientists [48].

4.0 Practical Guidelines: pricing strategies and model technology transfer agreements

4.1 Pricing strategies/Valuation of IP

One of the critical and complex issues to be negotiated between the prospective transferor and the potential transferee is the "price" or the "cost" of the industrial property rights to be acquired, whether outright or by license, and of the technology to be transferred. The "price" or the "cost" is dependent upon a number of factors, including the nature of the industrial property rights and the technology and the relative bargaining power of the two parties. The prospective transferor usually makes a careful assessment in terms of value or the need for the particular technology, the alternative technologies available, the prospect of technological advances and the likely production and profitability of the potential transferee. The prospective transferor also makes detailed projections of production and consequent income flow from other potential licensees or technology recipients. The financial terms of the license often depend on how one has defined the subject matter and its scope.

IP valuation should take into account different economic, technology-related and legal factors. Due to the heterogeneity of the factors concerned and the specific purposes addressed in every valuation, there is no generally-accepted standardised IP valuation model. The financial information on the value of the IP rights in the content is generally not known publicly. So, as a practical matter, how does one approach the question of valuation in a technology license? One may need to consider the value of the IP in the context of all the other related transactions: the financial terms will vary depending on whether there is only an IP license or also a manufacturing and purchase agreement, a marketing agreement, a distribution agreement, a joint venture, etc.

From the perspective of the licensee, the first thing to assess is whether one can afford the cost that the license will add to the product or technology. In other words, the question for a licensee is whether he can afford to pay for this license, given the other costs that will need to be incurred. The licensee will need to make an assessment of the market for the product to be sold and the price he can charge in the market and compare the same with the cost he is likely to pay for obtaining the license. From the perspective of the licensor, one should know early in the negotiations the amount of money that will give a return (profit) on investment in research and development of the technology.

There are several methods that are often referred to in order to value a technology. These methods are only rough guides, and common sense must always be applied. The three classic methods include (i) the cost method, (ii) the income method, and (iii) the market method. The cost-based method is based on the analysis of the costs necessary to achieve IP protection as well as the money that can be saved by IP protection instead of licensing-in technology from a third party; the income-based method is based on the estimation of the marketability and market conditions of the IP concerned; the market-based method, refers to the value of comparable market transactions [49].

The cost method

This is simply calculating how much the licensor has invested in developing the technology and the IP. Here, the distinction between the IP and technology is important, as the patent or other IP itself may be all that is licensed so only to be assessed for valuation. The common sense factors that affect how the cost of the IP is recovered relate to the licensor's alternative ways of recouping investment and gaining profit—e.g. the licensor may have other licensors, or may be marketing the technology by himself. The mere fact that the licensor has spent a great deal of money does not necessarily bear any relation to the value of the technology to the licensee. Perhaps the licensor spent too much on R&D, or poorly conceptualized the relationship of the technology to the market. In this approach, it may be difficult for the licensee to know the accurateness of the estimates of the licensor. To sum up, the cost method may help the licensor in assessing his situation, but it's not likely to be persuasive to a potential licensee.

The income method

This method involves calculating how much the parties expect will be earned by the technology that is to be licensed and then dividing this up into percentages based on some notion (inherently subjective) of how much each party deserves based on its contribution to the technology, the stage of development of the technology, market risk, marketing, inherent value, strength of the patent against litigation attack, and many other factors. Some licensing professionals refer to a "rule of thumb" or rough measure which provides that the licensor should receive around one quarter to one third of the benefits accruing to the licensee. The income method is a useful tool in figuring out a lump sum payment, where the parties need to envision the long term value of the license, and then discount it to net present value.

The market method

This method involves the comparative market value paid by similar technologies in the market. There are businesses that specialize in amassing royalty data. It is often possible to find articles or other resources concerning royalties or fees paid in similar transactions or involving similar technologies or similar scopes of license or involving similar regions, etc. The problem is to find a license or transaction that is comparable in all these respects. The technology may be similar, but the scope of the license may not be comparable, and so on. There is also the reality that not all IP is equal; a very strong and useful patent accompanied by a trademark license and an expert consulting contract will be more valuable than a pure IP license involving a weak patent that is currently subject to litigation and that can easily be worked around by a competitive inventor.

There are two types of payments that are common in technology licensing: royalties and lump sum payments. These can be combined in different ways and taken together should reflect the fundamental calculation made for valuation of IP. Royalties may be based on per unit sales, a per unit royalty whereby the licensee pays a set amount for each unit of product sold. Alternatively, the royalty may be a percentage of revenues from products sold or sub-licensed that incorporate the technology.

Royalties may be assessed based on gross or net prices or revenues (after subtracting various costs such as shipping, customs) but it is important to specify exactly how the royalty will be calculated, including providing sample calculations in an exhibit to the agreement. The licensee will often want a provision “capping” the royalties that must be paid to the licensor. This means that the licensee will pay X percent of his product sales up to a certain fixed amount. This “cap” may be renewed annually or may be over the life of the agreement. The licensee likes a cap because it gives him the prospect of using the technology “free” after a certain period of successful sale of the product incorporating the licensed technology. Also, it creates a more certain business model—the licensee knows what he will be paying. The licensor does not like caps because it limits his “upside”, his chance of gaining royalties substantially in excess of his investment in the technology.

The opposite of a cap is a “minimum”. Just as the licensor does not like a cap, because it restricts his upside, he does like a minimum royalty because it limits his “downside”. In other words, even if the technology or the market is disappointing, he is guaranteed a certain minimum royalty. Minimums are often used when the license is exclusive.

Royalties may also be adjusted according to a number of variables, such as time or product sales or revenues. So, for example, a royalty may begin at 2% of the average sales price, but decrease to 0.5 percent over the life of the agreement, reflecting the declining value of the technology. Or royalties may be adjusted according to product sales, with a higher royalty to be paid if the volume of sales is low.

A lump sum payment may be made at the beginning of an agreement or at a later stage. Such payments may be in instalments. Instalments may be timed to coincide with development milestones. Where the licensee is in a stronger financial situation than the licensor (e.g. a start –up licensor with a new technology) sometimes the licensee will pay an advance at the beginning of the agreement to get the licensor started in business or to bridge a difficult financial situation, or to enable it to pay engineers, chemists, etc. to conduct further development of the technology. This advance can be offset against royalties that the licensee would otherwise have to pay the licensor, until such time as the advance (in effect a loan) is paid off.

In essence the following may act as guide to a patent owner to determine the strength of his patent, which may depends on:

- the scope of the claims (Which use of the technology is exactly covered and made off limits to third parties by the legal title?)
- territorial scope of the patent (Where does the owner enjoy exclusive rights territorially?)
- its legal lifetime (For how long will these rights exist, i.e. is there still the potential to extend its protection by renewal or will the technology be licensed shortly before the maximum period of protection elapses so the information will soon become freely available?)
- its economic significance (For how long will the patent be able to generate income or save costs? Are there alternative technologies available: Is the

technology unique or do licensees have the chance to select similar technologies so they do not rely on licensing-in one's technology? Does the area of technology face quick changes so the significance of the patented technology will become obsolete/out-dated quickly and is thus of less interest for others?)

Example: identifying parameters to be considered in the valuation of low end IP–Solar lantern

The key steps in the valuation of IP are the identification of IPs to be valued, the description of the scope of the IP, making an assessment of the limitations of the availability of data, finally undertaking preliminary analysis based on relevant data selection and collection [50]. It is noted that there is no registered patent in case of IP of solar lantern. The only registered IP is the design of the solar lantern, which indeed is a value addition to the whole IP involved in the transfer of technology. The other IP is the confidential elements of the product and design characteristics e.g. 360 degree spread of light, carry handle to be sturdy and comfortable, weight of the lantern should not be more that 2.5 Kgs, lantern to be stable with a good supporting base, an indicator to indicate that the lantern is charging, and a warning light to show that the battery is low. This technical know-how provides a new, improved and competitive solar lantern, which indeed is a value addition.

The choice of battery technology made a significant technological improvement. The incorporation of efficient photo-voltaic cell module was also its unique strength. The product developed after a large scale household testing, lantern to provide light up to 4-5 hours, and the final price of the product being reasonable for the customer. The spares too were to be readily and easily available to the customers. The overall lifetime of the lantern was 6 years. All lanterns to meet the basic quality control standards. There is a huge market of solar lantern world – wide [51].

The parameters of valuation may, thus, include proprietary technology e.g. registered design in case of solar lantern and the proprietary technology of non-registered confidential know-how including the design and product characteristics. The other parameters, on which value may be assessed include level of technology as compared to the state of the art, life of technology, level of standardization and quality control, type of technology e.g. process or product, scope of application of the technology in the market, income contribution, degree of completeness e.g. ready for commercialization. These parameters may help in the assessment of the value of the IP being transacted in the case of solar lantern technological know-how.

4.2 MODEL AGREEMENTS: SALIENT FEATURES

There is no 'one fit all' model agreement on the several dimensions of IPR issues in transfer of renewable energy technologies. The agreement could be between two companies transacting business in technology or between research institute and a company or an inventor and a company or between any two parties. The following are typical examples that indicate the kind of clauses that may be used in an agreement. There will be several situations in the real life cases and during negotiations that have to

be kept in view while making use of such agreements, which may require more expert legal expertise. In several agreements, the examples of definitions of IP or confidential information have been mentioned with respect to the renewable energy technology that are only indicative. Instead of the example, one should use the technology or IP being transferred in one's case.

4.2.1NON-DISCLOSURE AGREEMENT

In a Non-Disclosure Agreement (NDA), also known as confidential agreement, two parties agree in writing to keep certain information confidential between them. There is usually a "Disclosing Party" who is anticipating that it will be disclosing confidential information as part of the agreement, and wants to keep this information confidential. Likewise, there is a reciprocal "Receiving Party" who will be receiving the information, and will be under an obligation to maintain the information in confidence.

Generally, the Receiving Party would be required to "hold and maintain the Confidential Information in strictest confidence for the sole and exclusive benefit of the Disclosing Party." To make sure confidential information remains in confidence, the Receiving Party shall also agree to "carefully restrict access to Confidential Information to other employees, contractors and third parties as is reasonably required." Even to such parties, the confidential information can only be disclosed on signing on the Non-Disclosure Agreement.

In addition to restricting disclosure of confidential information, many companies also choose to restrict the use to which the confidential information may be put to. For instance, an employer may wish to restrict their employee from not only disclosing confidential information to outside parties but, also, from using confidential information for any matter but employer business [52].

The following is a typical example that indicates the types of clauses that may be used in the agreement [53].

SAMPLE NDA AGREEMENT

Between:
[Company A: name and address]

and

[Company B or Individual: name and address]

1. Both the 'Disclosing party' and the 'Receiving party' are keen to share the confidential information for the purpose of the exchange or transaction in technology or intellectual property or to consider possible collaboration in developments arising from a research institute, it is agreed that all information, whether oral, written or otherwise,

that is supplied by the ‘Disclosing party’ shall be treated as confidential by the ‘Receiving party’.

2. The ‘Receiving party’ undertakes not to use the information for any purpose, other than for the purpose for which it has been given (generally explained in paragraph 1), without obtaining the written permission of the ‘Disclosing party’.

3. This Agreement applies to both technical and commercial information communicated by either party.

4. This Agreement does not apply to any information in the public domain or which the ‘Receiving party’ can show was either already lawfully in their possession prior to its disclosure by the other party or acquired without the involvement, either directly or indirectly, of the ‘Disclosing party’.

5. Either party to this Agreement shall on request from the other return any documents or items connected with the disclosure and shall not retain any unauthorized copies.

6. This Agreement or the supply of information referred to in paragraph 1, does not create any licence, title or interest of the ‘Receiving party’ in respect of any Intellectual Property Rights of the ‘Disclosing party’.

7. Each party shall be relieved of all obligations of confidentiality under this Agreement after 5 years or less from the date of signing of this Agreement.

Signed [representative’s name]
For [Company A]
Date

Signed [representative’s name]
For [Company B]
Date

4.2.2 IP SALE OR ASSIGNMENT AGREEMENT

The following are the key provisions that need be included in an Intellectual Property sale or assignment Agreement [54, 55].

1. Introduction of Parties

The Intellectual Property Assignment ('the Assignment') is made and effective as on ---------- (Effective date) by and between ---------- [Company A] (the Assignor)----------and the ---------- [Company B] (the assignee). The Assignor and Assignee may be referred to individually as 'Party' or collectively as Parties.

2. Recitals

Whereas it is the Assignor's intention to assign and transfer to the Assignee all of its right, title, and interest in and to the intellectual property as defined (Exhibit A); and

Whereas, the Assignee desires to purchase or acquire all of the Assignor's right, title, and interest in and to the intellectual property; and

Whereas each party is authorized and capable of entering into this agreement.

Now, therefore, in consideration of the covenants and premises set forth herewith, and for other good and valuable considerations, which are hereby acknowledged, the parties hereto agree as follows:

2.1 Consideration

In this case, the Assignee is giving money (sometimes called "consideration") to receive the Assignor's property. Enter the amount to be paid, and indicate how long the Assignee has to make that payment after the agreement is signed.

2.2 Assignment of Intellectual Property

The intellectual property being assigned may not be described in the main agreement itself. The assignment references "Exhibit A," and explains that the full description of the intellectual property is located on that Exhibit. Be as complete and clear as possible in describing the property being transferred.

2.3 Assignor's Representations and Warranties

The Assignor's promises about the ownership of the property that is being sold. More specifically, the Assignor is swearing that:

(a): it is the owner.

(b): it has not sold or transferred the property to any third party.

(c): has the authority to enter the agreement.

(d): it does not believe that the property has been taken from any third party without authorization (e.g., plagiarized materials).

(e): if the intellectual property is (or includes) a patent (Insert the patent number and the granting patent office); it doesn't know about any existing challenges to the validity of that patent.

(f): the property wasn't created while the creator was employed by a third party. In many cases, if an individual was employed by a company and came up with a product, the company will own that product.

2.4 Assignee's Representations and Warranties

The Assignee's promises about the execution of the transaction. More specifically, the Assignee is swearing that it:

(a): has the authority to enter the agreement.

(b) has enough funds to pay for the assignment.

2.5 Documentation

The Assignor's promise to help with any paperwork needed to complete an assignment (e.g., filing information about the assignment with the registry office and transferring document titles). This implies the additional promise that the Assignor will help with transfer paperwork for filings outside of the country.

2.6 Indemnification

This includes a description of each party's future obligations, if the intellectual property is found to infringe on a third party's rights. Generally, it shall be the responsibility of the assignor to clear the deal from any infringement.

2.7 Assignment and Waiver of Moral Rights

Moral rights involve general rights in respect to the intellectual property.

The assignor irrevocably and in perpetuity waives, in favor of Assignee, all moral rights in and to the transferred intellectual property, wherever applicable as per the national laws.

2.8 Non-disclosure

The assignor promises, for itself, its officers, directors, shareholders, etc., that it agrees that, except with the assignee's express prior written consent, that it will not disseminate, disclose, or use, or permit to be used, any of the transferred intellectual property, since upon execution of the agreement the IP is property of the assignee.

2.9 Assignment of the Agreement

The assignee may wish to require their prior written consent before the assignor is allowed to assign the agreement to a third party.

2.10 Governing Law

The parties agree that the prevailing law governing the agreement shall be that of the 'Recipient party'. Both party shall seek the resolution of the dispute through arbitration. (this will facilitate a speedy resolution to any dispute).

Exhibit A: Description of Intellectual Property

This exhibit is essential to the agreement, and should detail exactly what is being provided as part of this sale.

Example: Provision and Installation of solar module technology and systems for a residential building, including a solar array (a set of solar modules), an inverter, batteries, the in-home solar power monitor and the electric meter. The technology supplier shall estimate the consumption requirement and provide the entire know-how for sizing the solar panel requirements. The vendor shall also determine, which technology (monocrystalline or polycrystalline or amorphous silicon thin film solar cell technology) shall be more efficient and cost effective and provide the technology accordingly. In order to estimate savings on both the product and installation costs, the vendor shall prepare a comparative table of three technologies and indicate which technology shall provide the faster break even.

The intellectual property may also include assignment of trademarks, patents, domain names, and intangible assets. Effective as of the date of signing of the agreement, the Assignor sells, transfers, conveys, assigns and delivers to Assignee and Assignee accepts all right, title and interest of Assignor in and to (i) the trademarks set forth herein, viz. ---[include the details of the trademarks] (ii) the registrations and applications for registrations thereof and (iii) the goodwill of the business connected with the use thereof and symbolized thereby (the "Assigned Trademarks")

Effective as of the date of signing of the agreement, the Assignor sells, transfers, conveys, assigns and delivers to Assignee and Assignee accepts all right, title and interest of Assignor in and to the patents set forth herein. [include details of the patents giving patent numbers and the registered patent office and data of grant] .

Effective as of the date of signing of the agreement, Assignor sells, transfers, conveys, assigns and delivers to Assignee and Assignee accepts all right, title and interest of Assignor in and to the domain names and registrations therefor set forth hereto.

Effective as of the date of signing of the agreement, Assignor sells, transfers, conveys, assigns and delivers to Assignee and Assignee accepts all right, title and interest of Assignor in and to the goodwill and all other intangible assets currently used exclusively in connection with the Business, including, without limitation, if and to the extent in existence, any and all trade secrets, inventions, designs, copyrights, non-registered trademarks and other intellectual property, know-how, manufacturing methods and processes.

4.2.3 LICENSING OF INTELLECTUAL PROPERTY

[56, 57,58]

[Note: Examples of definitions of IP or confidential information have been mentioned with respect to the renewable energy technology that are only indicative. Instead of the example, one should use the technology or IP being transferred in one's case]

1. Definitions:

1.1 Technology means and includes all technology and technical information that pertain to manufacture and installation of the Solar Module Technology for power generation as described below in Exhibit A.

1.2 "Intellectual property" shall mean those patents, designs and any other IP registered and granted to Licensor, Know-how and technical information and including a) at least the technology embedded in US Patents numbers: 7,589,302 & 7,109,461 – Solar Tracking System; 7,550,054–Method of manufacturing mirrors for a dish reflector; and 6,730,841–Method and apparatus for mounting a photovoltaic roofing material; b) Know how such as all laboratory notebooks, research plans, inventions, materials and methods of production, formulas, plans, specifications, equipment and equipment designs, marketing surveys and plans, business plans, all the engineering, design, manufacturing, installation, commissioning and operation knowledge, written or oral, whether in the form of unpatented inventions, formulae, procedures and methods or current and accumulate skills, experience and trade secrets, and the Technical Information which shall mean all documents, drawings, diagrams, specifications, instructions and training and maintenance manuals.

1.3 Exhibit A:

The company X has developed an ultra powerful solar module, which can produce many times more power than a typical solar panel. In this system, sunlight is beamed from mirror collectors, to the solar modules, which convert the concentrated light directly to Megawatts of power. Solar photovoltaic (PV) modules are an electrically connected array of solar cells that convert sunlight directly into electricity (photovoltaic literally means 'electricity-from-light').Most of the system is made of ordinary materials like glass, steel and concrete. This unique combination of high technology and common building materials enables a high performance solar power station to be built at low cost.

The essential components of the power plant, developed by the Company X are an ultra powerful solar module for use in concentrated sunlight; a cooling system to keep solar cells operating at 60ºC to optimise the operation of the PV modules in a concentrated solar beam; low cost, high performance mirror concentrator systems; and a control system to manage the power station to deliver maximum output and reliability.

The essential components of the technology are already proven in Company X's commercially operating power plants. These systems use only a relatively small amount

of ultra high efficiency PV materials and do not use silicon PV, which is currently in short supply. The technology can be easily upgraded - as solar cell technology develops the plant's PV components can be replaced. The technology can be deployed in different sized configurations from 1MW to GW scale according to customer requirements. The systems puts out standard three-phase AC power to the electricity grid.

Project Specifications: Large scale solar concentrator power plant; Full commissioning is expected in 4 years; Capacity: 154MW; Generation: 270,000 MWh per annum (equivalent to the annual electricity needs of 45,000 homes); Plant components: Concentration mirrors – 19,000; Receivers – 250; PV Modules – 60,000;

1.4 Confidential Information shall include all data, materials, products, technology, computer programs, specifications, manuals, business plans, software, marketing plans, financial information, and other information disclosed or submitted orally, in writing or by any other media to licensee by licensor. In particular this includes, the evaluation certification report of the Environmental Protection Agency, design and process information on integration of solar cells and modules, material, cost and price parameters for the module and its components, land slope details and its acquisition plans, energy output and efficiency data,

Confidential Information disclosed orally shall be identified as such within a week of disclosure. The Licensee makes commitment with respect to the confidential Information received from the Licensor regarding this technology (a) not to use the confidential Information for any other purpose except required for use with in the scope of the Agreement; (b) to safeguard and take protection measures for the confidential Information received from the Licensor in the same manner as it would have done for its own information of a similar nature; (c) not to disclose the Confidential Information to third parties (except to its employees, agents or consultants who are bound to the Licensee by a like obligation of confidentiality) without the express written permission of the Licensor.

The Licensee is not prevented from using or disclosing any of the Confidential Information, that can be evidenced from written records, was previously known to it; or (b) which becomes the public knowledge, in the future, other than through acts or omissions of Licensee; or (c) is lawfully obtained by the Licensee from sources independent of the Licensor.

The secrecy obligations of the Licensee with respect to the Confidential Information will continue for a period ending five years from the termination date of this Agreement.

1.5 Subject to the limitations set forth in this Agreement, the Licensor grants to the Licensee an exclusive license for the territory bounded by geographical regions XYZ for the technology and under Patent Rights to make, have made, use, sell, offer to sell and import Licensed Products and to practice Licensed Know-how and Methods. The Licensee shall have no rights to use the technology and the patent rights in territories other that the XYZ.

The grant of License is exclusive for the life of the Agreement and is subject to all the applicable provisions of any license to the prevailing laws of the national government.

The Licensor reserves the right to use the Invention and associated technology for educational and research purposes in the allocated territory XYZ and assign the License to other parties in territories other than XYZ.

1.6 Licensor agrees that it will not issue any license granting the right to sell Licensed Products covered by the Patents to the general public, to any person, firm or corporation under terms and conditions more favorable than those granted to Licensee hereunder without giving Licensee the benefit thereof as of the date on which such more favorable terms and conditions shall become effective. In the event that Licensor enters into any such more favorable license, Licensor will promptly notify Licensee to that effect and offer Licensee a reasonable opportunity to accept all such terms and conditions.

If an agreement is concluded by the Licensor with any third person in [specified territories on more favorable terms and conditions than those of [this Agreement] [e.g. the royalty rates], the Licensee shall be entitled to have the terms and conditions of [this Agreement] [e.g. the royalty rates] modified as of the earlier date on which such other person conducts operations under such favorable terms and conditions to the same extent as those granted to such third person.

1.7 The Licensee shall have the exclusive right under the Licensed technology and rights to Patents to grant sub-licenses to others at royalty rates not less than those required to be paid in this Agreement. In respect of sub-licenses granted by Licensee under this Agreement, Licensee shall pay to Licensor ten (10%) percent of all revenue received in compensation for the sub-license, whether this takes the form of lump sums or royalties paid or any compensation in value or rebates in return for the sub-license.

The granting by Licensee of sub-licenses under the Licensed Patents shall be at the discretion of Licensee, and Licensee shall have the sole power to determine whether or not to grant sublicenses, the identity of sub-licensees, the royalty rates and terms and conditions of such sub-licenses.

1.8 The information on the modifications to the Licensed technology or patents whether by the Licensor or the Licensee shall be mutually shared. If these modifications are done independently by the Licensee then he shall be entitled to obtain a patent for the same in his own name and make use of the modifications for its purposes. However, the Licensor shall have to take a License from the owner of the patent, in this case the Licensee, for its use in any territory other than XYZ.

In case, the modifications made by the Licensor, they shall be available to the Licensee as the rights formally transferred to him under the technology and patents and no extra charge shall be levied by the Licensor. In case the modifications are jointly made and owned by the two parties, the rights shall be available to the Licensee at no cost while

they are transferred to any other party in territory other than XYZ, the Licensee shall have the benefits accruing to him as a Licensor of those modifications.

1.9 Technical deliverables means any reasonable available documentation, records, and tangible items constituting the Technology as in Exhibit A and the intellectual property rights included and specified in Exhibit A.

The Licensee's engineers shall be given adequate advice and schooling from the Licensor on how to use the Technical Information for engineering, designing, manufacturing, installation, and commissioning of the solar technology modules. This schooling of Licensee's engineers, which will take place in a place convenient to the Licensee shall be performed at no cost for time. The travel and accommodation expense for it shall be paid by the Licensee.

The Licensor shall send a technician to the plant location of the Licensee to assist in the set-up and start-up operation of the solar module plant at no cost for time, but travel and accommodation costs will be paid by the Licensee.

1.10 Royalties

Net Sales

"Net Sales" shall mean the total of the cash and non-cash consideration received by Licensee, its Affiliates, and its sub-licensees for Licensed Products sold or delivered to independent, third-party customers in bona fide arms-length transactions, less the customary deductions in the industry.

Financial Conditions

Licensee shall pay Licensor, during the term of this Agreement, a royalty of five percent (5%) on the Net Sales generated by Licensee, its Affiliates, and/or Distributors in the Field.

4.2.4 AGREEMENT FOR LICENSING OF KNOW-HOW

[59]

THIS AGREEMENT made and entered into this ------day of ---- between [company A; first party] of the one part

AND

[company B; second party]

of the other part. Hereinafter referred to as parties.

PREAMBLE

WHEREAS company A has developed and is in full possession of and has full intellectual property rights to manufacture Product A as detailed in Annexure I (hereinafter called the KNOWHOW) and for making a few other Products based on the same know how as per specifications laid down in Annexure II (hereinafter called the PRODUCT).

And whereas the company A at the request of the company B has agreed to grant license to it for utilising the KNOWHOW on terms and conditions hereinafter contained.

SCOPE OF AGREEMENT

This agreement details the modalities and the terms and conditions for the grant of license for utilising the said KNOWHOW, the rights and obligations of either party thereto and the financial arrangements between the parties.

GRANT OF LICENCE

In consideration of the payment as provided for in this agreement and performance by PARTY of the covenants herein contained, the first party hereby grants to the second party the license to utilize the KNOWHOW to make and sell the PRODUCT directly or through any marketing agency authorized by the second party.

The license hereby granted to the second party is for utilization of KNOWHOW for a period of seven years on exclusive basis commencing from the date of transfer of KNOWHOW provided that the KNOWHOW is effectively utilized within one year from the date of transfer of KNOWHOW.

The license shall come into force from the date of its signing (hereinafter called the EFFECTIVE DATE) and shall remain valid for a period of seven years thereafter.

The second party will produce and market the PRODUCT within one year from the date of transfer of KNOWHOW. If the second party fails to do so the first party will have the right to cancel the license granted to the second party and that it in turn will surrender the KNOWHOW. In such a circumstance the second party will not have any right to claim license fee already paid to the first party.

FINANCIAL ARRANGEMENTS

In consideration of the license hereby granted and the transfer of KNOWHOW by first party to the second party, the second party shall pay to the first party as hereunder:

Licence Fee

i. Lump sum

Rs. 5 Lakhs on signing of the agreement, and

Rs. 5 Lakhs on the day of transfer of KNOWHOW by the first party

and

ii. Royalty

Royalty at the rate of 2% of the ex-factory sale price of the PRODUCT made by the PARTY for a period of 10 years, computed from the date of commercial production.

Responsibilities of the first party

Transfer of KHOWHOW

i. Transfer of KNOWHOW Documents

The first party shall within 180 days of the EFFECTIVE DATE hand over to the PARTY Technology Transfer Documents (TTD) consisting of specifications of product, process details, quality control procedures and user manuals.

ii. Demonstration

First party shall demonstrate the KNOWHOW at its venue, to the authorized representative of the second party within 6 months from the EFFECTIVE DATE for which the second party shall pay separately. On completion of the demonstration both parties shall sign a certificate to this effect.

iii. Training

First party shall arrange for the training of Two or Three of personnel of second party having the requisite qualifications for a maximum of 2 months for which the second party shall provide inputs/pay separately. The training shall be availed of by the second party within a period of 3 months from the date of transfer of KNOWHOW.

The transfer of KNOWHOW shall be deemed as completed on performance by the first party on completion of the tasks as supply of the know how documents, demonstration, and training.

Assistance

First party may at the request of the second party and on its paying charges as specified by the first party, depute qualified personnel to render assistance in KNOWHOW implementation. This assistance would be available up to a period of 4 years from the EFFECTIVE DATE.

Responsibilities of the second party

The second party shall employ its best endeavour to work the KNOWHOW and sell the PRODUCT on a commercial scale. The PARTY shall commercialise the KNOWHOW within a period of 12 months from the date of transfer of KNOWHOW.

Fulfillment of all procedural, legal, operational requirements for the commercial implementation of the KNOWHOW shall be the responsibility of the second party.

The second party acknowledges the absolute ownership of KNOWHOW by the first party and shall not dispute the legality, validity or enforceability of the license granted.

It shall not be open to the second party to claim the KNOWHOW in their name on the plea of having effected any improvements/modifications upon the KNOWHOW or upon the PRODUCT. All PRODUCTS manufactured by the PARTY shall be deemed to have been manufactured under the license hereby granted.

The second party shall permit the personnel of the first party or its attorneys or duly authorized agents, at all convenient time to enter into and upon any premises of second party where PRODUCTS under this license are manufactured/stocked/sold/used for the purpose of inspecting the same and the manufacture thereof, generally to ascertain that the provisions of this license are being complied with and quality of the PRODUCT maintained.

The second party shall not, at any time, assign, mortgage, charge, grant sub-license or otherwise deal with possession or control of the license hereby granted.

The second party shall not directly or indirectly and either by itself or by its agents use the KNOWHOW otherwise than in accordance with these presents.

The second party shall not file any application for seeking intellectual property rights in its own name or in the name of other person(s) on any matter relating to the information disclosed to it by the first party under this agreement, save with the written prior approval of the first party.

The second party shall not oppose or direct or cause any persons to oppose any application seeking intellectual property rights relating to the PRODUCT and/or KNOWHOW filed by the first party.

The second party shall treat as strictly confidential all information/knowledge obtained from the first party, in connection with or relating to the license hereby granted.

General provisions

During the currency of the agreement both parties shall promptly disclose to each other in writing, all or any improvements or modifications made on the KNOWHOW / PRODUCT. All such improvements/modifications shall then form an integral part of the KNOWHOW.

These presents shall not be construed as a warranty by the first party of the novelty, utility, saleability and workability of the KNOWHOW/PRODUCT.

This agreement shall be the sole repository of the terms and conditions agreed to herein by and between the two parties and no amendment thereof shall take effect and be binding on either of them except provided for in clause A.16. hereunder.

FORCE MAJEURE

Neither party shall be held responsible for non-fulfilment of their respective obligations under this agreement due to the exigency of one or more of the force majeure events such as but not limited to acts of God, War, Flood, Earthquakes, Strikes, Lockouts, Epidemics, Riots, Civil Commotions etc., provided on the occurrence and cessation of any such event the party affected thereby shall give a notice in writing to the other party within one month of such occurrence or cessation. If the force majeure conditions continue beyond six months, the parties shall jointly decide about the future course of action.

INDEMNITY

The first party hereby agrees to authorise and to empower the second party to institute and prosecute such suits or proceedings as the second party may deem expedient, to protect the rights hereby conferred and for the recoveries of damages and penalties for the infringement of such rights and to secure to the second party full benefits of this licence and for any such purpose to use the name of first party. The second party in its turn shall indemnify the first party against damages, costs and expenses occasioned by such proceedings, and the first party shall in any such proceedings, at the expense of

the second party afford all proper and or reasonable assistance in proving and defending its title to the grant of the rights hereby conferred.

TERMINATION OF AGREEMENT

This agreement may be terminated by either of the parties forthwith if the other party commits breach of any of the terms hereof and shall have failed to rectify such breach within sixty days of the notice in this behalf having been served on it by the other party.

In addition to the reasons for termination as set forth above, this agreement may be terminated forthwith if either of the parties voluntarily or involuntarily enters into composition, bankruptcy or similar reorganisation proceedings or if applications invoking such proceedings have been filed.

SETTLEMENTS

Upon termination of the agreement:

All rights granted to and the obligations undertaken by the parties hereto shall cease to exist forthwith except the obligation of the PARTY to keep KNOWHOW in confidence herein and pay royalty as accrued on or prior to the date of such termination, make written reports and keep records, files and books hereto and the right of the first party to inspect the same.

The second party or its assigns will not utilize the KNOWHOW to manufacture the PRODUCT and the second party shall immediately deposit with the first party the original and all copies of Technology Transfer Document, and other documents data related to this licence received from the first party.

The second party shall immediately pay to the first party all amounts of money due from it up to the date of termination.

The second party will not be debarred from disposing off the PRODUCTS which are already manufactured or in the process thereof by sale or otherwise. Such disposal will however, not be effected unless and until the second party remits to the first party the entire amount of royalty due.

AMENDMENTS TO THE AGREEMENT

No amendment or modification of this agreement shall be allowed. The request for the same is made in writing by both the parties or their authorized representatives and specifically stating the same to be an amendment of this agreement. The modifications/changes shall be effective from the date on which they are made/executed unless otherwise agreed to.

ASSIGNMENT OF THE AGREEMENT

The rights and/or liabilities arising to any party to this agreement shall not be assigned except with the written consent of the party and subject to such terms and conditions as may be mutually agreed upon.

ARBITRATION

Except as hereinbefore provided, any dispute arising out of this Agreement, the same shall be referred to the arbitration of two arbitrators, one to be appointed by each party to the dispute, and in case of difference of opinion between them to an umpire appointed by the said two arbitrators before entering on the reference, and the decision of such arbitrators or umpire, as the case may be, shall be final and binding on both parties. The venue of arbitration shall be at such place as may be fixed by such arbitrators or umpire and the arbitration proceedings shall take place under the local national laws.

SEAL OF PARTIES

This agreement has been executed in two originals one of these has been retained by the first party and the other by the second party.

In witness whereof the parities hereto have signed this agreement the -----day of ------ mentioned hereinbefore.

For and on behalf of the first party

_____

For and on behalf of the second party

_____

ANNEXURE - I

KNOWHOW

The KNOWHOW shall mean [please specify the type of knowhow/ scale of development/ parameters, specifications of its operation / use etc.]

ANNEXURE - II

PRODUCT

The PRODUCT shall meet/conform to the following [specifications / parameters etc.]

ANNEXURE - III

TERMS & CONDITIONS FOR PAYMENT OF ROYALTY

The royalty shall be payable on net ex-factory sale price of all the PRODUCT manufactures sold and used for as such or to make any other product therefrom, exclusive of all duties and taxes payable to the Government. The ex-factory sale price for the basis of payment of royalty on the PRODUCT used for shall be (i) the highest ex-factory sale price of the PRODUCT sold; (ii) or if no merchant sales have taken place, the price such a PRODUCT would fetch if sold in the market as determined by the CEO of the first company.

The period 10 years for the payment of royalty shall be computed from the date of the start of the commercial manufacture of the PRODUCT authorized by the second party to any agency of the Government or in the its Annual Reports and shall survive the period of licence hereinbefore mentioned.

The royalty shall become due for payment on the 31st March and on 30th September in every year and shall be paid by the second party on / or before the expiry of 60 days from the above two stipulated dates. In the event of default in the payment of royalty amount as above the PARTY shall pay interest on amount in default at the rate of 18% per annum.

The PARTY shall within 60 days of the stipulated dates deliver to the first party in a prescribed form, a true and complete statement in writing of PRODUCT manufactured, sold and / or used by PARTY during the preceding half year and all the royalty payable to the first party under this agreement.

The second party shall be liable for the payment of royalty on all PRODUCT irrespective of any plea whether the same have been manufactured as per the KNOWHOW licensed by the first party or otherwise. All PRODUCT manufactured by the second party shall be

deemed to have been manufactured under KNOWHOW licensed by the first party. It will not be open to the second party to claim any exemption or reduction in the payment or amount of royalty accruing under this agreement on the plea of having used KNOWHOW other than that of the first party or having effected any improvements/modifications in the intellectual property licensed by the first party.

The second party shall at its place of business, keep accurate records in sufficient details to enable the calculation and determination of royalty payable hereunder and upon the request of first party shall permit its authorized representative to have access during its business hours to examine relevant records as may be necessary to (a) determine in respect of any half year as specified above, ending not more than one year prior to the date of such request, the correctness of any report and / or payment under this agreement and (b) obtain information as to the royalty payable for any such period in case of failure to comply with the terms of the agreement

4.2.5 MODEL AGREEMENT FOR IPR RIGHTS IN JOINT VENTURE

[60,61]

Joint ventures ("JV") may take a number of forms, but the basis on which they are formed is always a commercial collaboration in which two or more unrelated parties pool, exchange, or integrate some of their resources with a view to mutual gain, while at the same time remaining independent. In view of there being several possible formulations of the joint ventures, this section gives only a model memorandum of understanding for setting up a joint venture and indicates the provisions for inclusions of intellectual property issues. Therefore, it does not include the details of the other legal provisions of a model agreement on the joint venture.

Memorandum of understanding for setting up a joint venture

The parties (Company A – the technology providing company; Company B – the technology receiving company) have had discussions about a proposed joint venture in the location of Company B for production of..... ..... and have agreed on the following points at the end of their discussions on ..... [Date].

1.0 Company A shall supply the technical know-how for production of ..... The technical know-how shall comprise the complete documentation required for the production, including technical data of raw materials, technology, engineering, design and layout of plant to ensure commercial production of the product, deputation of technicians to (the Company B) as required to ensure the fulfilment of the undertaking and training of the Company B's technicians in their factory in (location)……..... for the same purpose. The travel costs by ..... class air passage as well as the living costs of the technicians covered by such deputation either way will be borne by the new joint venture company.

1.1 Company A will help the new company in the selection of the machinery required as also the raw materials to be used in the production. The dies required for the production shall be purchased by the new joint venture company from Company A as and when required, and the prices to be mutually agreed upon. Complete technical know-how and documents shall be handed over to Company B and/ or the newly formed JV company.

1.2 Company A shall be paid by the newly formed company for its know-how a lumpsum fee of ..... . This amount will be paid in three instalments as follows :

1/3 after the agreement has been filed with the local authorities

1/3 on delivery of technical documentation, and

1/3 on the commencement of commercial production.

1.3 In addition to the above lump-sum fee, the Company A shall be paid a royalty of ..... percent for a period of ..... years on the ex-factory value of the licensed products.

1.4 In order to carry out terms of this undertaking and on signing of the documents by the parties, a joint venture company shall be formed with agreed paid- up capital basis to carry out the terms of undertaking. Company A shall participate in the equity capital of the new joint venture company to the extent of .....% of the paid- capital.

1.5 Company A will participate in the equity capital as agreed. The Company A shall continue to hold the said shares and shall continue to provide any improvement in the technology for manufacturing the said products. If, however, Company A decides to withdraw its equity participation after 5 years the equity shares held by Company A shall be offered to Company B at a rate to be fixed by the auditors of the joint venture company.

1.6 Company B agrees to move the necessary applications before its Government authorities for registration of the joint venture company, for import of capital goods, and for sanction of the proposed foreign collaboration.

1.7 Company B shall keep, Company A informed, with the help of a quarterly report or more often if necessary, of the progress made by them in completion of the formalities associated with the establishment of the joint venture and in implementation of the project.

1.8 Company B shall be assisted by Company A in completing the official formalities for the establishment of the joint venture by being given the necessary information relevant to implementation of the project. The application forms requiring such assistance from Company A shall be given to Company A.

1.9 Company B shall bear all the initial expenses involved in the formation of the joint venture company. These expenses shall be debited to the account of the new joint venture company, and subsequently shared by the two partners in proportion to their share capital in the joint venture company.

1.10 Both Company A and Company B affirm that they shall implement the project in good faith and shall take all necessary steps to see the project through expeditiously. They shall not negotiate with any other parties for a similar project, and the negotiations in progress, if any, shall be terminated forthwith.

1.11 This Memorandum of Understanding shall be valid upto the end of ....., and both the parties hereto shall be free thereafter from their obligations herein written, if the progress achieved until then is not found satisfactory by either of them.

IPR Issues in Joint Venture: Model formulations

Joint venture relationships should be defined in a formal, written agreement. The agreement should establish all of the rights and obligations among the parties. The negotiation and drafting of joint venture agreements is usually a significant effort. The key intellectual property issues that joint venture agreements should address are listed

below. There may be a compromise or negotiated settlement on some of these provisions. But in general, an agreement will:

Define the intellectual property brought into the joint venture; identify the nature of the parties' ownership interest; include express representations and warrantees from the parties that they own what they say they own.

The parties to joint venture should consider carefully how to allocate, control and protect confidential information and other intellectual property that is contributed to, or developed in, their business relationship. The parties may want to provide that all employees and consultants with access to confidential information must execute a separate stand-alone confidentiality and nondisclosure agreement.

Contain warranties that the intellectual property is valid and does not infringe upon the rights of a "third party" (that is, a person not in the joint venture).

Establish the parties' ownership interest in any new intellectual property created during the course of the joint venture.

Include indemnification and insurance provisions whereby one party agrees to indemnify and provide insurance coverage for the other parties to cover liabilities to third parties.

Establish patent prosecution obligations. In which countries will patents be sought for inventions? Who will control and who will pay for prosecuting patent applications and paying patent maintenance fees? (These expenses can be significant, particularly if patents are sought in multiple countries).

Establish intellectual property licenses or assignments that the parties may grant to one another.

Establish the compensation to be paid for licenses and assignments, such as lump sums, percentage royalties (usually a percentage of product sales revenues or profits), and minimum periodic royalty amounts.

Set forth the parties' duties of confidentiality, if not done in a separate confidentiality agreement.

Leave no uncertainty with respect to the party's intellectual property rights after termination of the joint venture. The parties also should consider how to allocate new intellectual property that is developed in the course of the business relationship. In a classic joint venture where the new intellectual property becomes the property of the new entity, the parties should consider who will own the new intellectual property if the entity subsequently is dissolved.

When the value of the IP is represented in the goodwill or equity of the JV, the parents can secure that value upon termination of the JVA. One parent can buy out the other parent's interest; both venturers can sell their interest to a third party; or the JV could liquidate and distribute its assets to the parents.

Other dimensions / issues in Joint Venture: Model formulations

These may include, for example, terms and conditions indicating the Scope/Purpose of the Joint Venture ("JV"), Form of Joint Venture, Regulatory aspects, Confidentiality Agreement, Governance, Management Board (Management Committee or Board of Directors), Meetings of Co-venturers, Management, Managers/Directors' and Officers' Liability Insurance, Auditors, Reporting and Access to Information, Actions Requiring Consent – Either Management Board or Co-venturers, Business Plans and Budgets, Settlement of Disputes, Business of the Joint Venture, Scope of the Business, Distributions, Financing, Third Party Debt Financing, Financing Provided by the Co-Venturers, Co-venturer Support, IP or Technology, Corporate Opportunity, Breaches, Share Transfer Restrictions and Related Provisions, Exit and Termination Right, Pricing; Valuations, and Termination/Dissolution.

4.2.6 SALE AND PURCHASE OF EQUIPMENT

[62]

1. The entire IP is embedded into the capital goods or equipment. The IP is owned by the Supplier or its associated third parties. The responsibility of the buyer may be to facilitate the supplier in executing necessary instruments with third parties, if necessary, that such rights vest in the supplier.

2. The seller will provide to the buyer all the necessary support for the maintenance of the equipment. The seller will also provide to the buyer with a complete preventative maintenance plan for supplies. The plan shall include the complete sets of maintenance and operating manuals for all equipment and capital goods purchased by the buyer.

3. The seller will provide all necessary training and training materials to the buyer for the supplies at the initial stage of installation, at no additional cost to the buyer, at buyer's facility. Where seller obtains the supplies or a portion of the supplies from a third party for resale to the buyer, the seller shall arrange from such third party to provide the training.

4. The buyer shall not be made responsible for any infringement arising out of the IP embedded in the equipment (including any patent, trademark, copyright, moral, industrial design right or misuse or misappropriation of trade secret) and in the event any such situation arises, the expenses to defend the infringement shall be borne by the seller.

5. The seller shall also assign to Buyer each invention, discovery or improvement (whether or not patentable). The seller acknowledges that any proprietary and confidential information received from Buyer to customize the equipment to its need, shall remain the property of the buyer and shall be kept confidential by the seller regardless of whether such information is marked or identified as confidential.

6. The pricing information, system design and package information made available by the seller to the buyer in connection with buyer's purchase and resale of the products is proprietary information of the seller. Such information shall be used by the buyer only as directed by the seller and only to the extent necessary to acquaint potential purchasers with the use of the products and shall not otherwise be disclosed to any third parties, unless authorized in writing by the seller.

7. The seller agrees to defend, hold harmless and indemnify buyer, and its customers against claims of direct infringement to infringe any proprietary right (including patent, trademark, copyright, moral, industrial design right or misappropriation of trade secret). The seller also agrees to meet the any resulting damages or expenses, arising in any way in relation to the supplies provided by the seller.

8. The products sold to the buyer may bear markings, legends, or trade names placed thereon by the seller. The buyer agrees that all trademarks, trade names,

patents, trade secrets, inventions, service marks, and other intellectual property associated with the products belong solely to the seller. The buyer has no rights to such property. The buyer covenants and agrees that said markings, legends, and trade names etc. shall not be altered, removed, concealed or covered by the buyer, nor shall any marking, legend or trade name be added to the products, unless required by law or otherwise approved in writing in advance by the seller.

4.2.7 CONSULTANT AGREEMENT

[63, 64]

[Note: examples have been mentioned that are only indicative. Instead of the example, one should use the provisions applicable in one's case.]

1.0 This Agreement ("Agreement") is made and entered into as of _____[Date] by and between ("Company"), and the Consultant ("Consultant") identified in Exhibit A attached hereto (the "Exhibit").

Whereas, Company desires to engage Consultant to perform certain services for Company and Consultant desires to render such services on the terms and conditions set forth herein.

Now, therefore, in consideration of the mutual covenants and agreements set forth herein, Company and Consultant agree as follows:

1.0 The term of this Agreement shall commence on the date hereof and will conclude immediately upon written notice from either party to the other party (the "Term").

1.1 Company hereby engages Consultant as an independent contractor and Consultant accepts such engagement, upon the terms and conditions hereinafter set forth. Consultant's responsibilities are set forth in the Exhibit. During the Term, Consultant agrees to perform services professionally, in a timely manner and in accordance with this Agreement and all applicable laws.

1.2 Consultant

(i) shall be responsible for his own business expenses, as well as any computer equipment, software and other tools necessary to carry out his responsibilities;

(ii) shall have final say as to where services shall be performed;

(iii) acknowledges that the relationship created by this Agreement is not necessarily a continuing relationship;

(iv) shall be responsible for setting his own hours of work, so long as he adequately performs the services required of him;

(v) acknowledges that his performance of services will not occupy all of his working hours;

(vi) will perform the majority of his services off Company premises except when his presence is necessary at the company to perform the assignments being handled by him;

(vii is free to perform services for other companies and individuals so long as he otherwise complies with the terms of this Agreement;

(viii) acknowledges that his engagement by the Company is on a non-exclusive basis, and as such, the Company is free to engage other independent contractors to perform identical services to those being performed by Consultant;

1.3 Company shall not be responsible for hiring, or paying any assistants or employees of Consultant any fees, and commissions in consideration of the services to be provided to Company by Consultant. Company shall only pay to Consultant the fees and commissions ("Fees" and "Commissions") as described in the Exhibit.

1.4 Consultant agrees that all right, title, and interest in and to any idea or any innovation, design, drawing, character or other work product are the property of the company. All copyrights, patents, trademarks and trade names which are developed or created in whole or in part by Consultant at any time and at any place during the term of Consultant's engagement by the Company and which are related to the business activities of Company, shall remain the exclusive property of Company. Consultant hereby assigns to Company any and all such intellectual property.

1.5 Consultant agrees that while engaged by Company he will not compete with Company in any way, and that for a period of 12 months after the termination of his engagement with Company, he will not:

(i) solicit or induce any employee of Company to terminate his employment with Company;
(ii) compete with Company in its business; or

(iii) otherwise interfere with any business relationships of Company.

1.6 Consultant recognizes that Company has acquired and will be developing certain techniques, product characteristics, and business plans, databases, software, trade secrets, and know-how, which Company regards as confidential.

1.7 Consultant agrees that, upon termination from the Company, he will immediately deliver to Company, all Company-related technical material, catalogs, documentation, computer diskettes or other Confidential Information, which may involve the business of Company irrespective of the same being created by the Consultant.

1.8 Consultant further agrees not to reveal any confidential information while working as an independent contractor to Company or after its termination. He will not use such information for his own benefit or the benefit of any other person. He may become aware of confidential information of third parties with which the Company does business from time to time. Consultant agrees to treat all such information as Confidential Information. Confidential Information shall exclude any information that becomes generally available to the public other than those that becomes available as a result of an unauthorized disclosure.

1.9 Consultant will be associated with the Company as an independent contractor solely for the purposes and to the extent set forth herein. This Agreement shall not be construed as an agreement establishing any other relationship with the company, particularly, he will not be considered the employee of the company..

1.10 Each party represents and warrants to the other party that it has the right and authority to enter into this Agreement and to perform its obligations hereunder.

1.11 This Agreement is personal to the Consultant and may not be assigned or transferred in any manner whatsoever.

Exhibit A:

Example:

To monitor and provide the technical information and assistance for building up the prototype of the solar lantern as per the design of the supplier;

Provide the technical assistance in setting up and installation of the manufacturing plant for solar lantern of the buyer, which may include planning, budgeting and execution of the requisite activities;

Establish a computer – wide network to test the functioning of the critical features of the manufacturing process;

Provide information on the product characteristics and its adaptations to the local customer requirements and tastes;

Provide necessary training to the employees of the company and make them aware of the know-how associated with the technology;

The company shall pay an initial engagement fees for the consultant on completion of the prototype of solar lantern; further fees shall be payable to the consultant on setting up of the manufacturing plant and later on starting of marketing of the product and its acceptability in the market.

4.2.8 LICENSING OF TRADEMARK

[65]

A. DEED OF ASSIGNMENT OF TRADEMARK

This Deed of Assignment is made on [date].

BY

M/s …….. (hereinafter called the "ASSIGNOR" which expression shall include the heirs, assigns and successors) of the First Part.

In favour of

M/s……

(hereinafter called the "ASSIGNEE" which expression shall include the heirs, assigns and successors) of the Second Part.

1.0 Whereas, the ASSIGNOR is the owner of the trade marks (hereinafter referred to as Trademarks described in Annexure-A) which Annexure is attached hereto and made a part of this Assignment.

1.1 Whereas, the ASSIGNEE is desirous of acquiring the entire right, title and interest in trade marks mentioned in Annexure-A together with the goodwill of the business concerned in the goods for which the said Trademarks are used.

1.2 Now that in consideration of "Amount X" the receipt of which is hereby acknowledged, the ASSIGNOR as beneficial owner, hereby assigns to the ASSIGNEE, its successors and assigns, the entire right, title and interest in and to the said Trademarks in relation to the goods including the right to sue and recover damages against past infringers together with the goodwill of the business in respect of which the said Trade marks are used, and all other legal rights which the said ASSIGNOR has hitherto enjoyed, the same is now to be held and enjoyed by the ASSIGNEE, its successors and assigns; and

1.3 Whereas the Assignor will, at the request and cost of the Assignee, at any time, execute any document or deed as may be required for better and more perfectly assuring the Assignment of the Trade Mark and to give effect to this Deed unto the Assignee and particularly for registration of this Assignment with the Registrar of Trade Marks as required by the applicable law; and

1.4 Whereas the Assignor shall deliver to the Assignee any further documents that may be necessary to effectuate the purposes of this assignment and to convey to the Assignee all absolute and unconditional rights in the Trade Mark; and

1.5 Whereas the Assignee shall have the unrestricted right to Assign or otherwise dispose off this Deed or of any of its rights hereunder, in whole or in part.

1.6 Jurisdiction:

All claims and disputes in relation to the Trade Marks as described in this Deed between the parties to the Assignment shall be subject to the “Jurisdiction Y” only.

1.7 In witness whereof, the said ASSIGNOR and ASSIGNEE have put their respective hands to this Deed of Assignment in the presence of witnesses who have also put their signatures in this Deed on the day, month and year first mentioned above.

_____

(ASSIGNOR)

WITNESSES:

1……

2……

_____

(ASSIGNEE)

WITNESSES:

1……..…

2……

Annexure-A

Trade Mark

S.No.	Application/Registration No.	Class	Mark	Status
1.				
2.				

B. LICENSE AGREEMENT

[66]

1.0 This Agreement made by

M/s……
hereinafter referred to as the “Licensor” which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors.

In favour of

M/s…… a Company having its office at……hereinafter referred to as the “Licensee” which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors.

Together both the Licensor and the Licensee shall be termed as the parties.

1.1 Whereas the Licensor is the Proprietor and owner of Trademarks (hereinafter referred to as Trademarks described in Annexure-A) and in respect of goods of the Trademarks (hereinafter referred to as Goods); and

1.2 Whereas Licensee is desirous of selling Goods bearing the Trademarks and consequentially has requested Licensor for use of the Trademarks with regard to the Goods; and

1.3 Whereas, Licensor has agreed to use of the Trademarks by the Licensee in respect of the Goods and in consideration of the covenants hereinafter mentioned and mutually agreed upon between the parties hereto.

1.4 Now this Agreement witnesseth and it is hereby agreed to between the parties as under:

1.4.1 The Licensor hereby grants a non-exclusive and non-assignable license to Licensee for use of the Trademarks for all the countries of the world in respect of the Goods.

1.4.2 Licensee shall submit to Licensor for approval, in the manner in which Licensor shall reasonably direct in writing, all packaging, trade address, labels, advertising and other materials on which the Trademarks appear, and Licensee specifically undertakes to amend to the satisfaction of Licensor any such packaging, trade address, labels, advertising and other materials which are not approved by Licensor.

1.4.3 Licensor has the right, at all reasonable times, to inspect itself or through its authorized agent the quality of the Goods in relation to which the Trademarks are used as well as methods of assembling the packaging of such Goods. Licensor has the right to prohibit any practices or sale under the Trademarks of any Goods which Licensor determines were assembled or packed by improper methods or did not conform to the quality, standards and specifications of the Licensor.

1.4.4 Licensee shall not use or omit to use the Trademarks in any manner whatsoever which shall or may tarnish or dilute the significance, distinctiveness and validity of the Trademarks.

1.4.5 Licensee shall not use the Trade Marks in any manner which would tend to disparage, or degrade the reputation associated therewith, or which would impair the Licensor's rights therein or its title thereto.

1.4.6 Licensee neither use nor display the Trade marks in relation to any other marks or marks owned by any other party (including the Licensee) as to suggest that the two marks constitute a single composite mark.

1.4.7 In consideration of the license granted by the Licensor, the Licensee shall pay the Licensor a "sum of Y" only for each calendar year or any part thereof as License Fee. The Licensee shall pay the License Fee for each calendar year on or before March 31st of the succeeding calendar year. The parties may mutually in writing revise the License Fee.

1.4.8 Licensee hereby acknowledges that the Licensor is the sole and rightful owner of the Trademarks and will not at any time hereafter either directly or indirectly challenge the Licensor's right thereto or the validity and distinctiveness thereof in relation to the Goods and Licensee further agrees and undertakes that after expiration or termination of this Agreement in any manner whatsoever, it will not register, use or permit others to use the Trademarks or any other marks or marks which might be confused therewith.

1.4.9 Licensee shall not be entitled to during the continuance of this Agreement or at any time thereafter claim rights in the Trademarks or acquire rights therein in any manner, other than that of a licensed user.

1.4.10 Licensee while using the Trademarks in relation to the Goods shall so describe the Trademarks as clearly to indicate that these are the Trademarks of the Licensor and that these are being used only by way of licensed use by the Licensee.

1.4.11 In connection with its licensed use of the Trademarks, Licensee shall not in any manner represent that it has any ownership interest in the Trademarks thereof and Licensee specifically acknowledges that its licensed user of the Trademarks shall not create in Licensee any right, title or interest in the Trademarks, and that every licensed use of the Trademarks by Licensee shall accrue to the benefit of Licensor.

1.4.12 Licensee shall keep Licensor indemnified at all time from any claim made by third parties due to any alleged or actual deficiency of the Goods.

1.4.13 The Licensee shall during the continuance of this Agreement inform the Licensor of any instance of infringement or suspected infringement or imitation, unfair competition or passing off of the Trade Marks which may come to its knowledge or notice. The Licensee shall immediately and at its cost take such steps as necessary to combat the said infringement or suspected infringement or imitation or passing off. The Licensee shall cooperate with the Licensor in such proceedings.

1.4.14 This Agreement shall remain in force upto a period of three years from the date herein unless terminated, and can be renewed for further periods of one year each upon written consent of the parties hereto.

1.4.15 This Agreement shall be terminated upon the happening of all or any of the following events:

a. Upon the Licensee ceasing or discontinuing for any reason whatsoever, the business in relation to the Products;
b. Upon either Party being declared insolvent or bankrupt;
c. Upon Ninety days notice by either Party;
d. Upon being known at any time, the Licensee has used the Trade Marks in a manner which, in the opinion of the Licensor, is a misuse of the Trade Marks or deceives the public or which is contrary to the provisions of this Agreement.
e. Upon being known at any time, the Licensee has used any other trademark/s of the Licensor without a specific license from the Licensor, or if at any time the Licensee breaches or fails to comply with any of the terms or conditions of this Agreement or fails to act in conformance with or to perform any of its obligations or covenants hereunder; unless the Licensee cures such misuse, unauthorized use, or breach within thirty (30) days after the Licensee receives notice of same from the Licensor.
f. By mutual agreement in writing between the Parties.

1.4.16 On expiration or termination for any reason whatsoever of this Agreement, the parties shall settle the outstanding accounts between them.

The Licensee shall-

i. pay the License Fee within one month from the date of termination or expiration.

ii discontinue and desist itself from using the Trade Marks upon or in relation to or in connection with any of the products as also any other marks which is likely to cause confusion or deception or to detract from or adversely affect, the interest of the Licensor in and to the Trade Marks in any manner whatsoever.

iii. Obliterate and remove the Trade Marks from the sign boards, publicity material and other promotional medium if any.

iv. Shall handover to the Licensor all dyes, blocks, labels, packaging printed material or the like featuring the Trade Marks.

1.4.17 Licensee shall not in any way, assign or transfer their right under this Agreement to any body nor shall permit or authorize any other party to use the Trademarks.

1.4.18 No provision of, or act performed, under this Trademark Agreement shall be construed as constituting either party the agent of the other.

1.4.19 The parties hereby agree to modify and/or amend any terms and conditions of this Agreement for better working of this Agreement and/or for any other reason by mutual consent as and when necessary.

1.4.20 Any waiver of rights of termination of any earlier default shall not constitute a waiver of the right to terminate this Agreement for any subsequent default.

1.4.21 Any controversy, disputes or differences of opinion that may arise between Licensor and Licensee from this Agreement, or in relation to or in connection with

this Agreement shall be finally settled through Arbitration and the venue shall be Geographical location ‘X’.

SIGNED, SEALED AND DELIVERED BY

(LICENSOR)

BY_____

Witnesses:

1. ……

2. ……...

(LICENSEE)

By_____

Witnesses:

1. ……

2. ……...

R&D TO COMPANY

4.2.9 INVENTION DISCLOSURE FORM

[67]

1. Title of Invention:

2. Brief description of the invention: [Please indicate if this is a new process, composition of matter, a device, a plant variety, or a new use for, or an improvement to an existing product or process]:

In case there is disclosure of more than one product or process, please give separate description of each of them.

2.1. For taking a patent it is essential that the invention should not have been published in a publication or described orally in a meeting for a limited period of time. Please indicate any publication arising or likely to arise out of the invention or any oral presentation in a meeting.

("Publication" for this purpose includes abstracts of talks, news stories, electronic availability (i.e., on the internet such as via a newsgroup or blog), as well as published scientific papers)

2.2 Is a publication or oral disclosure descriptive of the invention planned within the next six months or planned at any time in the future? Give details.

3. From the description of the invention, highlight and expand on novel and unusual feature:

How does the invention differ from present technology?
What problems does it solve, or what advantages does it possess?

3.1. Are there inventions by other research workers that are related to this one? Please describe, including information on relevant patents and publications if available.

4. Indicate the possible uses for the invention:

Does it enhance the usefulness of an existing technology?
Are there other uses that might be realized in the future?

5. Indicate the disadvantages or limitations of the invention:

What restrictions on commercialization may exist?
Can the limitations/restriction be overcome? How?

6. Enclose sketches, drawing, photographs and other materials that help illustrate the description.

7. Has the invention been tested experimentally? Are experimental data available? Describe the data.

8. Please indicate if the invention arose out of the sponsored work. Also, give the details of the sponsor.

9. Has the invention been disclosed to industry representatives or sponsor? Has any commercial interest been shown in it?

10. Names & designations & signatures of the individual contributors:
(An inventor is someone who has contributed to the patentable features of the invention; please list all contributors to the invention known at this time)

4.2.10 INVENTION DISCLOSURE AND ASSIGNMENT FORM (BY EMPLOYEES)

[68]

1. Name (CAPITAL LETTERS): _____

2. I submit that by virtue of

-- My employment at Research Institute and/or

-- My participation in research at the Research Institute

I, hereby agree that:

A. I shall promptly disclose and assign to the Research Institute any right to all inventions, copyrightable materials, computer software, semiconductor mask patterns, tangible research property and trade marks (Intellectual Property) conceived, invented, authored or validated to practice by me, solely or jointly with others which:

(i) are outcome of in – hose or sponsored research or any other agreement to which I have direct or indirect participation.

or

(ii) are outcome of substantial utilisation of resources from the Research Institute.

B. I shall cooperate with the Research Institute to obtain, protect or exploit the intellectual property through legal protection such as patent, copyright etc.

C. I shall surrender to the Research Institute the documents related to intellectual property if I leave the Research Institute for any reason or at any other time asked for such documents.

D. The agreement will survive the termination of my employment or other association with Research Institute.

Signature of the Employee _____

Witness, Head of the Research Institute_____

Date_____

4.2.11 INVENTION ASSIGNMENT PROVISIONS IN EMPLOYEMENT AGREEMENT

[69]

For an employee in the R&D organisation or a company the most important contractual term with regard to ownership of the discovery is the assignment provision. Such a provision should form the part of the employment agreement with the employee. An example of such a provision might read as follows:

“Employee hereby assigns all right, title and interest to any inventions, ideas, discoveries, concepts and improvements ("Inventions") related to the Business, whether made during working hours or at home, and any Inventions made by Employee as a result of his employment. In addition, the Employee hereby assigns all right, title and interest to any writings, memoranda, research notebooks, drawings, sketches, computer programs, and manuals ("Work Product") created in whole or part by Employee”.

4.2.12 EMPLOYEE CONFIDENTIALITY AND INVENTION ASSIGNMENT AGREEMENT

[70]

This Employee Confidentiality, and Invention Assignment (Agreement) is made on [Date] between the Company A or Research Institute (Company A), and the Employee (Employee).

1.0 In consideration of Employee’s employment by the Company A, this Agreement shall apply to the entire period of Employee’s employment with the Company A, Employee hereby agrees as follows:

1.1 The "Confidential Information" means trade secrets, proprietary information and materials, and confidential knowledge and information which includes matters of a technical nature (discoveries, ideas, concepts, designs, drawings, specifications, techniques, models, diagrams, test data, scientific methods and know-how), and matters of a business nature (the identity of customers and prospective customers, suppliers, marketing and development plans, pricing or pricing policies, and any other

information of a similar nature not available to the public). Such information shall not include information that: (a) was in Employee's possession or in the public domain before receipt from the Company, as evidenced by the then existing publication or other public dissemination of such information in written or other documentary form; (b) becomes available to the public through no fault of Employee; or (c) is received in good faith by Employee from a third party who is not subject to an obligation of confidentiality to the Company or any other party.

1.2 There will be opportunities for the Employee to be exposed to the confidential information of the Company during the course of his employment. Therefore, Employee shall not, without the prior written approval of the Company A, directly or indirectly (a) reveal, report, publish, disclose or transfer any Confidential Information of Company A to any person or entity, or (b) use any of its confidential Information for any purpose or for the benefit of any person or entity, except as may be necessary in the performance of Employee's work for Company A both during and after the period of his employment.

1.3 The Employee shall also come across to confidential Information of third parties who have given the Company A the right to use such confidential Information, subject to a non-disclosure agreement between the Company A and the third party. Therefore, Employee shall not, without the prior written approval of the Company A, directly or indirectly (a) reveal, report, publish, disclose or transfer any Confidential Information of such third parties to any person or entity, or (b) use any confidential Information for any purpose or for the benefit of any person or entity, except as may be necessary in the performance of Employee's work for the Company A both during and after the period of his employment.

1.4 Employee acknowledges and agrees that all Confidential Information of Company A whether or not labeled or identified as confidential or proprietary, made or compiled by Employee, or made available to Employee, during the period of his employment with Company A are and shall remain Company A's property and shall be delivered to Company A on the termination of such employment with Company A. Employee shall not retain copies of such Confidential Information, documents and records.

1.5 Disclosure and Assignment of Invention: Employee shall promptly, from time to time, fully inform and disclose to Company A in writing all inventions, copyrightable material, designs, improvements and discoveries of any kind which Employee now has made, conceived or developed during the period of Employee's employment with Company A, which pertain to or relate to Company A's business (Inventions). This covenant applies to all such Inventions, whether or not they are eligible for patent, copyright, trademark, trade secret or other legal protection; and whether or not they are conceived or developed by Employee alone or in collaboration with others.

1.6 All Inventions shall be the sole and exclusive property of the Company, and shall be deemed part of the Confidential Information of the Company for purposes of this Agreement. Employee hereby assigns all Employee's rights in all Inventions and in

all related patents, copyrights and trademarks, trade secrets and other proprietary rights therein to the Company.

1.7 Employee shall assist and cooperate with the Company, both during and after the period of Employee's employment with the Company, at the Company's sole expense, to allow the Company to obtain, maintain and enforce patent, copyright, trademark, trade secret and other legal protection for the Inventions. Employee shall sign such documents, and do such things necessary, to obtain such protection and to vest the Company with full and exclusive title in all Inventions against infringement by others.

1.8 Employee shall be entitled to the incentives resulting from the exploitation of such intellectual property as per the prevailing rules and practice of the company.

1.9 Governing Law: This Agreement shall be governed by and construed in accordance with the national laws.

In Witness whereof, the parties have executed this Agreement as of the [date].

On behalf of the Company A or Research Institute

Name & Designation: Signature:

Employee
Name & Designation: Signature:

Witness:
Name & Designation

4.2.13 MODEL AGREEMENT FOR COLLABORATIVE RESEARCH

[71]

THIS AGREEMENT made and entered into on this [DATE] between the Research Institute RERI (hereinafter called RERI which expression shall include its successors and permitted assigns) of the one part,

And

[Name of the Company with registration details] (hereinafter called the PARTY which expression shall include its successors and permitted assigns) of the other part.

The reference to both the Research Institute and the Company together may be made as Parties.

PREAMBLE

Whereas RERI is conducting research and development in all fields relating to renewable energy, and has several research programme, key expertise and facilities [indicate the work/facilities/expertise of the RERI specific to the collaborative work proposed].

Whereas the [PARTY] is desirous of collaborating with the [RERI] on specific research project, viz. [name the specific work or activity of the proposed collaboration] (hereinafter called the PROJECT) as per the scope of work detailed in Annexure I to this agreement.

Now therefore in consideration of the premises and mutual covenants hereinafter contained, the parties hereto agree as follows:

SCOPE OF THE AGREEMENT

The agreement details the terms and conditions, financial arrangements, modalities of collaboration, intellectual property rights, responsibilities and obligations of the PARTY and RERI pertaining to the PROJECT.

FINANCIAL ARRANGEMENTS

PARTY and RERI shall share the financial inputs for the PROJECT as follows:

For the work already done by the RERI, PARTY shall pay to RERI an amount of –'P1'—on or before signing the agreement.

For the work to be done, the PARTY alone or in collaboration with RERI shall meet or share the financial inputs as per details given in Annexure - II.

The PARTY shall, in addition to charges as above, pay to RERI for the personnel deputed outside their place of work in connection with work pertaining to the PROJECT. This will include the travel expenses, boarding & lodging and local transport as per RERI rules.

MODALITIES OF COLLABORATION

The respective responsibilities of RERI and the PARTY and schedule of fulfilment thereof shall be as per Annexure III. There will be a joint Monitoring Group for the PROJECT. The Monitoring Group shall consist of , say five persons, each from the RERI and the PARTY, the Director RERI being the chairman of the Monitoring Group. The Monitoring Group will identify the work to be done by the RERI and the PARTY, the targets/milestones and criteria for completion of the PROJECT. It shall also review the progress of the PROJECT.]

RESPONSIBILITIES OF RERI

RERI shall submit a report of or disclose to the PARTY the work done in the RERI pertaining to the PROJECT till the signing of this agreement.

RERI shall undertake the work on the PROJECT as per schedule of work detailed in Annexure-III for [indicate the name the item or product or device etc. alongwith its technical features and parameters] (hereinafter called the PRODUCT).

RERI shall undertake or assist the PARTY to carry out trials or studies or activities for [indicate the name the item or product or device etc.] (hereinafter called the PRODUCT) as per the protocol drawn up and agreed to between the parties as detailed in Annexure - III.

RERI shall complete the work as per schedule of work as detailed in Annexure - III. This period of completion of work could however be extended to such further periods as may be mutually agreed to between the parties without any liability on the part of RERI.

The RERI shall submit progress reports [quarterly or half - yearly] and a detailed Final Report.

The RERI will submit a statement of expenditure incurred by it to the PARTY against the amount paid by the PARTY. RERI shall not be responsible for any damage to the property/plant/ material of the PARTY by its personnel during or consequent to the work if any carried out under the PROJECT in PARTY's premises.

RESPONSIBILITIES OF THE PARTY

The PARTY shall supply the [please specify inputs e.g. financial/consumables/raw materials/components/equipment/product] to the RERI for the work envisaged in the RERI as provided for in Annexure II. The equipment/instrument/hardware etc. provided by or purchased at the cost of the PARTY shall after the completion of the PROJECT remain the property of the PARTY.

The PARTY shall arrange and co-operate with RERI to carry out trials or studies of the PRODUCT as per the protocol detailed in Annexure 1.

The PARTY shall undertake and complete the work as per schedule of work detailed in Annexure 1. This period of completion of work could, however, be extended to such further periods as may be mutually agreed to between the parties without any liability on the part of the PARTY.

The PARTY shall at its own cost procure/fabricate/ install/operate/commission the pilot plant or semi-commercial plant in its own premises. The RERI shall provide assistance to the PARTY in commissioning or operating etc. to the plant on mutually agreed terms & conditions as provided in the agreement. The PRODUCT manufactured in the Pilot plants or semi-commercial plant shall belong to the PARTY.

COMPLETION

The work envisaged to be done by the RERI or the PARTY shall be deemed to have been successfully completed by the RERI or the PARTY on submission of the Final Report or fulfilment of their responsibilities as detailed in Annexure III.

The PROJECT shall be deemed to have been successfully completed on satisfaction of criteria fixed by the Monitoring Group or any other criteria mutually agreed by the parties hereto.

SHARING OF INTELLECTUAL PROPERTY

Any intellectual property rights e.g. patents, designs, trademark, copyrights or others obtained by the parties hereto pertaining to the PROJECT prior to signing of the agreement shall remain the property of that party; the other party shall have the right to commercially exploit or use the intellectual property in consideration of this agreement on mutually agreed terms.

The intellectual property i.e. know-how, process, design, technique, patents, copyrights or any other generated in the PROJECT shall be jointly owned by RERY and the PARTY; the extent of ownership shall be decided mutually depending upon the relative inputs (intellectual, technical, financial, physical) made by the parties hereto to the PROJECT.

The procedural formalities for securing and maintaining the intellectual property rights, if any, shall be the responsibility of RERI or PARTY or Both and the expenditure incurred thereof shall be borne by each party equally. The question of whether or not intellectual property right should be secured and the territory where these shall be secured shall be decided by RERI and or PARTY.

The parties shall consult each other for any publication in respect of the PROJECT. These publications (papers, reports etc.) shall be in the names of research workers, wherein it will be duly acknowledged that the work has been carried out under the collaborative programme between the RERI and the PARTY.

CONFIDENTIALITY

During the tenure of the agreement and (3 years) thereafter both RERI and the PARTY undertake on their behalf and on behalf of their subcontractors, employees, representatives, or associates to maintain strict confidentiality and prevent disclosure thereof, of all the information and data exchanged or generated pertaining to work under this agreement for any purposes other than in accordance with this agreement. Both parties, however, retain the rights to use the R&D results generated during the PROJECT for its own R&D programmes without any obligation to the other.

UTILISATION OF INTELLECTUAL PROPERTY DEVELOPED

The PARTY shall have the first option to commercially exploit or use the intellectual property generated in the PROJECT provided such option is exercised by the PARTY within 3 or 'X' months of completion of the PROJECT. In such an event the fee and or royalty and other terms and conditions for the[commercial exploitation or use of the said intellectual property by the PARTY shall be as decided mutually between the RERI and the PARTY for which a separate agreement shall be entered into.

RERI shall have the right to licence the intellectual property generated in the PROJECT to others if the party fails to exercise the option within stipulated period or having exercised the option fails to commercialise the intellectual property within 'Y' months from date of exercise of such option. In such an event the terms and conditions for licensing to others shall be settled mutually between RERI and the PARTY.

The PARTY shall have the right on exclusive or basis to commercially exploit or use the intellectual property generated in the PROJECT. The right can be exercised initially for a period of 'Z' years from the date of commercial production or use by the PARTY as reported by it. It may become non-exclusive thereafter.

The PARTY shall have the right to licence the intellectual property generated to others with the approval or concurrence of RERI. The terms and conditions for such licensing shall be settled mutually between the PARTY & RERI.

The premia/royalty accrued from licensing of the intellectual property shall be shared between RERI and the PARTY in a ratio to be mutually decided depending upon the relative inputs to the PROJECT and in the transfer of intellectual property to other Party or Parties.

During the work envisaged under the agreement in the event of RERI scientists exploring, inventing or discovering results other than the specific objectives of the PROJECT, RERI shall retain absolute rights on such results. RERI shall first offer such results to the PARTY on negotiated terms by entering into a separate agreement. In case the PARTY does not accept the offer, RERI shall be free to release such results to other parties without any obligations to the PARTY.

FORCE MAJEURE

Neither party shall be held responsible for non-fulfilment of their respective obligations under this agreement due to the exigency of one or more of the force majeure events such as but not limited to Acts of God, war, flood, earthquakes, strike, lockouts, epidemics, riots, civil commotion, etc. provided on the occurrence and cessation of any such events, the party affected thereby shall give a notice in writing to the other party within one month of such occurrence or cessation. If the force-majeure conditions continues beyond six months, the parties shall then mutually decide about the future course of action.

EFFECTIVE DATE, DURATION, TERMINATION OF THE AGREEMENT

The agreement shall be effective from the Date of signing or happening of specific event [specify event] and shall remain in force for period of [___months] from the said date.

The agreement shall terminate on the expiry of the said period, unless extended by both parties.

During the tenure of the agreement, parties hereto can terminate the agreement either for breach of the terms and conditions of this agreement or otherwise by giving a [___months] notice in writing to the default party. Failure of either party to terminate the agreement on account of breach or default by the other shall not consist a waiver of that party's right to terminate this agreement.

In the event of termination of the agreement, the rights and obligations of the parties shall be settled by mutual discussion; the financial settlement shall take into consideration not only the expend incurred but also the expenditure committed by the parties hereto.

ASSIGNMENT OF THE AGREEMENT

The rights or and liabilities arising to any party to this agreement shall not be assigned except with the consent of the other party and subject to such terms and conditions as may be mutually agreed upon.

SIGNATURE OF PARTIES

In witness whereof the parties hereto have signed this agreement on the day, month and year mentioned hereinbefore.

Parties

For and on behalf	For and on behalf
of RERI	of PARTY
Signature _____	Signature _____
Name _____	Name _____
Designation _____	Designation _____
Seal _____	Seal _____
Witnesses: (Name & Address)	Witness: (Name & Address)
1. _____	1. _____
2. _____	2. _____
Date: _____	Date: _____

ANNEXURE - I

PROJECT

SCOPE OF WORK

ANNEXURE - II

The respective financial inputs to be provided for the PROJECT and their scheduling shall be as follows:

i. RERI

ii. PARTY

ANNEXURE III

The respective responsibilities of the parties and the schedule and criteria for fulfilment of their responsibilities shall as follows:

RERI

PARTY

ANNEXURE IV

Fee and or royalty and other terms and conditions for [commercial exploitation/use] of the Intellectual Property by the PARTY.

4.2.14 MODEL AGREEMENT FOR SPONSORED RESEARCH

[72]

THIS AGREEMENT made and entered into on this [DATE] between the Research Institute RERI (hereinafter called RERI which expression shall include its successors and permitted assigns) of the one part,

And

[Name of the Company with registration details] (hereinafter called the PARTY which expression shall include its successors and permitted assigns) of the other part.

The reference to both the Research Institute and the Company together may be made as Parties.

PREAMBLE

Whereas the PARTY is engaged in the business of renewable energy products and services and is seeking to research support and is desirous of sponsoring work with RERI for [name the specific work or activity that is being sponsored].

Whereas RERI is conducting research and development in all fields relating to renewable energy, and has several research programme, key expertise and facilities vis-a-vis the requirement of the PARTY [indicate the specific work/facilities/expertise of the RERI specific to the proposed sponsored ACCTIVITY] and has agreed to undertake the research work as detailed in the Annexure I to the agreement (hereinafter called the SPONSORED ACTIVITY).

Now therefore in consideration of the premises and mutual covenants hereinafter contained, the parties hereto agree as follows:

SCOPE OF THE AGREEMENT

The agreement details the terms and conditions, financial arrangements, intellectual property rights, responsibilities and obligations of the PARTY and RERI pertaining to the sponsored ACTIVITY by the PARTY.

FINANCIAL ARRANGEMENTS

In consideration of the work to be carried out and the grant of licence to the PARTY by RERI for using the intellectual property generated, i.e. the design, process, know-how, or software (hereinafter called the KNOW-HOW) for making or designing [indicate name the ITEM, EQUIPMENT] (hereinafter called the PRODUCT), the PARTY shall pay to RERI as follows:

Sponsorship Charges

i. An amount of _____ on or before signing of the agreement

ii. An amount of _____ on or before 1 [specify the time and/or the events for the subsequent instalments]

iii. An amount of _____ or balance amount prior to submission of the final report by the RERI.

The PARTY shall, in addition to charges as above, pay to RERI for the personnel deputed outside their place of work in connection with work pertaining to the PROJECT. This will include the travel expenses, boarding & lodging and local transport as per RERI rules.

Licence Fees

Lumpsum

a. An amount of _____ on or before signing of the agreement, and

b. An amount of_____ [Specify the time and/or events for subsequent instalments]

Royalty

Royalty shall be paid at the rate of ___% of the exfactory sale price _____ per unit quantify of the PRODUCT made, used and sold by the PARTY [indicate amount _____ per year for a period of [_____] years, computed from the date of commercial production. Their terms and conditions governing the payment of royalty shall be as in Annexure II.

RESPONSIBILITIES OF RERI

RERI shall complete the SPONSORED ACTIVITY including submission of the Final Report within [____] months of receipt of first instalment of payment or [__] months of supply of the specific the inputs to be provided by the PARTY e.g. raw materials/equipment/components/information/data etc. to RERI.

This period of completion of SPONSORED ACTIVITY could however be extended to such further periods as may be mutually agreed to between the parties without any liability on the part of RERI.

The RERI shall submit interim progress reports every quarterly or half-yearly and a detailed Final Report on the SPONSORED ACTIVITY on its completion.

DEMONSTRATION

RERI shall demonstrate the KNOW-HOW at the scale and place to the authorised representative of the PARTY within [__ months] of the submission of the Final Report.

The demonstration shall be deemed to have been successful if the yield/performance and or specifications or the technical features / parameters meet the criteria set out in the annexure - III to the agreement/or any other mutually agreed criteria laid down before commencement of demonstration. On completion of the demonstration both parties shall sign a certificate to this effect.

RESPONSIBILITIES OF THE PARTY

The PARTY shall supply at its own cost the requisite quantity of specified inputs to the RERI within [___ days] from the date of such a request by the RERI.

The PARTY shall permit the RERI its attorneys and duly authorised agents, at all convenient times to enter into and upon any premises of the PARTY where PRODUCT manufactured as aforesaid may be stored or manufactured and sold under this licence for the purpose of inspecting the same and the manner of manufacture thereof and generally to ascertain that the provisions of this agreement are being complied with.

During the tenure of this agreement the PARTY shall disclose to RERI any improvement/modification made on the PRODUCT/KNOWHOW.

Fulfilment of all procedural, legal, commercial requirements for the undertaking/implementing the results of the ACTIVITY shall be the responsibility of the PARTY.

The PARTY shall not, at any time, assign, mortgage, charge, grant sub-licences in respect of or otherwise deal with possession or control of the licence hereby granted.

COMPLETION OF ACTIVITY

The SPONSORED ACTIVITY shall be deemed to have been successfully completed on submission of the Final Report and demonstration as hereinbefore by the RERI to the PARTY.

SHARING OF INTELLECTUAL PROPERTY

If the results of investigations are such that the intellectual property rights are created within the scope of the sponsored activity then the same could be secured through legal instrument i.e. patents, designs, trademark, copyright or any other IP then RERI shall apply, secure and maintain the rights in consultation with the PARTY. The ownership of intellectual property rights shall primarily vest in the PARTY as it provided all the funds for the execution of the sponsored activity. In case, the RERI has put in its own resources then to that extent it shall have a share in jointly owning the IP.

The parties shall consult each for any publication in respect of the ACTIVITY. These publications shall be in the names of research workers, wherein it will be duly acknowledged that the work has been carried out at RERI under the sponsorship from [Name of the PARTY.]

CONFIDENTIALITY

During the tenure of the agreement and [____ years] thereafter both RERI and the PARTY undertake on their behalf and on behalf of their subcontractors/employees/ representatives / associates to maintain strict confidentiality and prevent disclosure thereof, of all the information and data exchanged/ generated pertaining to work under this agreement for any purposes other than in accordance with this agreement.

UTILISATION OF INTELLECTUAL PROPERTY DEVELOPED

During the work as envisaged under the agreement in the event of RERI scientists exploring, inventing, or discovering results other than the specific objectives of the SPONSORED ACTIVITY, RERI shall retain absolute rights on such results. RERI shall first offer such results to the PARTY on negotiated terms by entering into a separate agreement. In case the PARTY does not accept the offer, RERI shall be free to negotiate the release of such results to other parties without any obligations to the PARTY.

OR

The license hereby granted to the PARTY by RERI is for utilisation of KNOW-HOW on non-exclusive basis, and RERI reserves the right to grant similar licence at its discretion to others.

OR

The license hereby granted to the PARTY by RERI is for utilisation of KNOWHOW in (INDICATE GEOGRAPHICAL LOCATIONS) for a period of [X years] on exclusive basis commencing from the date of e.g. Date of Agreement OR handing over of Final Report etc. and non-exclusive thereafter.

In the event the PARTY fails to utilise the KNOWHOW within [-----months] of receipt of the Final Report, RERI shall be free to licence the KNOWHOW to other parties. In such a case, the premia/royalty received by RERI shall be shared between RERI and the PARTY on a 50:50 basis with a ceiling on the total amount receivable by the PARTY equal to the amount the PARTY has paid to RERI as sponsorship charges.

In case the PARTY utilises the KNOWHOW within the stipulated period, RERI shall have the right to licence it to other parties after the expiry of the exclusive period of licence. In case the PARTY is involved in the transfer of the KNOWHOW to other parties, the premia/royalty received by RERI shall be shared between RERI and the PARTY on a mutually agreed basis depending on the relative inputs of the parties. However if the PARTY is not involved in the transfer of the KNOWHOW, then the premia/royalty received by RERI from other parties shall be shared between RERI and the PARTY on a 50:50 basis with a ceiling on the total amount receivable by the PARTY equal to the amount the PARTY has paid to RERI as sponsorship charges.

RERI hereby authorises and empowers the PARTY to institute and prosecute such suits or proceedings as the PARTY may deem expedient, to protect the rights hereby conferred and for the recoveries of damages and penalties for the infringement of such rights and to secure to the PARTY full benefits of this licence and for any such purposes to use the name of the RERI. The PARTY in its turn shall indemnify RERI against damages, costs and expenses occasioned by such proceedings and the RERI shall, in any such proceedings at the expense of the PARTY afford to the PARTY all proper or reasonable technical assistance in proving and defending its title to the grant of rights hereby conferred.

FORCE MAJEURE

Neither party shall be held responsible for non-fulfilment of their respective obligations under this agreement due to the exigency of one or more of the force majeure events such as but not limited to Acts of God, war, flood, earthquakes, strike, lockouts, epidemics, riots, civil commotion, etc. provided on the occurrence and cessation of any such events, the party affected thereby shall give a notice in writing to the other party within one month of such occurrence or cessation. If the force-majeure conditions continues beyond six months, the parties shall then mutually decide about the future course of action.

EFFECTIVE DATE, DURATION, TERMINATION OF THE AGREEMENT

The agreement shall be effective from the Date of signing or happening of specific event [specify event] and shall remain in force for period of [___months] from the said date.

The agreement shall terminate on the expiry of the said period, unless extended by both parties.

During the tenure of the agreement, parties hereto can terminate the agreement either for breach of the terms and conditions of this agreement or otherwise by giving a [___months] notice in writing to the default party. Failure of either party to terminate the agreement on account of breach or default by the other shall not consist a waiver of that party's right to terminate this agreement.

In the event of termination of the agreement, the rights and obligations of the parties shall be settled by mutual discussion; the financial settlement shall take into consideration not only the expend incurred but also the expenditure committed by the parties hereto.

ASSIGNMENT OF THE AGREEMENT

The rights and/or liabilities arising to any party to this agreement shall not be assigned except with the written consent of the other party and subject to such terms and conditions as may be mutually agreed upon.

SIGNATURE OF PARTIES

In witness whereof the parties hereto have signed this agreement on the day, month and year mentioned hereinbefore.

Parties

For and on behalf	For and on behalf
of RERI	of PARTY
Signature _____	Signature _____
Name _____	Name _____
Designation _____	Designation _____
Seal _____	Seal _____

Witnesses: (Name & Address)

1. _____

2. _____

Date: _____

Witness: (Name & Address)

1. _____

2. _____

Date: _____

ANNEXURE - I

Objectives and Scope of the Sponsored Project

ACTIVITY shall consist of the following:

ANNEXURE - II

TERMS & CONDITIONS FOR PAYMENT OF ROYALTY

1. The royalty shall be payable on all the PRODUCT manufactured, sold and used for captive purposes as such or to make any other product therefrom, exclusive of all duties and taxes payable to the Government. The exfactory sale price for the basis of payment of royalty on the PRODUCT used for captive consumption shall be (i) the highest ex-factory sale price of the PRODUCT sold; (ii) or if no merchant sales have taken place, the price such a PRODUCT would fetch if sold in the market as determined by the DIRECTOR OF THE RERI.

2. The period of -- years] for the payment of royalty shall be computed from the date of the start of the commercial manufacture of the PRODUCT as reported by the PARTY or in the PARTY's Annual Report and shall survive the period of agreement hereinbefore mentioned.

3. The royalty shall become due for payment on the 31st March and on 30th September in every year and shall be paid by the PARTY on/or before the expiry of two stipulated dates. In the event of default in the payment of royalty amount as above the PARTY shall pay interest on the amount at a prevailing market rate.

4. The PARTY shall within 60 days of the stipulated dates deliver to RERI in a prescribed form a true and complete statement in writing of PRODUCT manufactured, sold and/or used by PARTY for captive purpose during the preceding half year and of all the royalty payable to RERI under this agreement.

5. PARTY shall be liable for the payment of royalty on all PRODUCT irrespective of any plea whether the same have been manufactured as per the KNOWHOW licensed by RERI or otherwise. All PRODUCT manufactured by the PARTY shall be deemed to have been manufactured under KNOWHOW licensed by RERI. It will not be open to PARTY to claim any exemption or reduction in the payment of amount of royalty accruing under this agreement on the plea of having used

KNOWHOW other than that of RERI or having effected any improvements / modifications in the KNOWHOW.

6. PARTY shall at its place of business, keep accurate records in sufficient details to enable the calculation and determination of royalty payable hereunder and upon RERI's request shall permit an authorised representative of RERI to have access during its business hours to examine relevant records as may be necessary to (a) determine in respect of any half year as specified above, ending not more than one year prior to the date of such request, the correctness of any report and/or payment under this agreement and (b) obtain information as to the royalty payable for any such period in case of failure to report or pay in terms of this agreement.

ANNEXURE - III

CRITERIA FOR SUCCESSFUL DEMONSTRATION

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