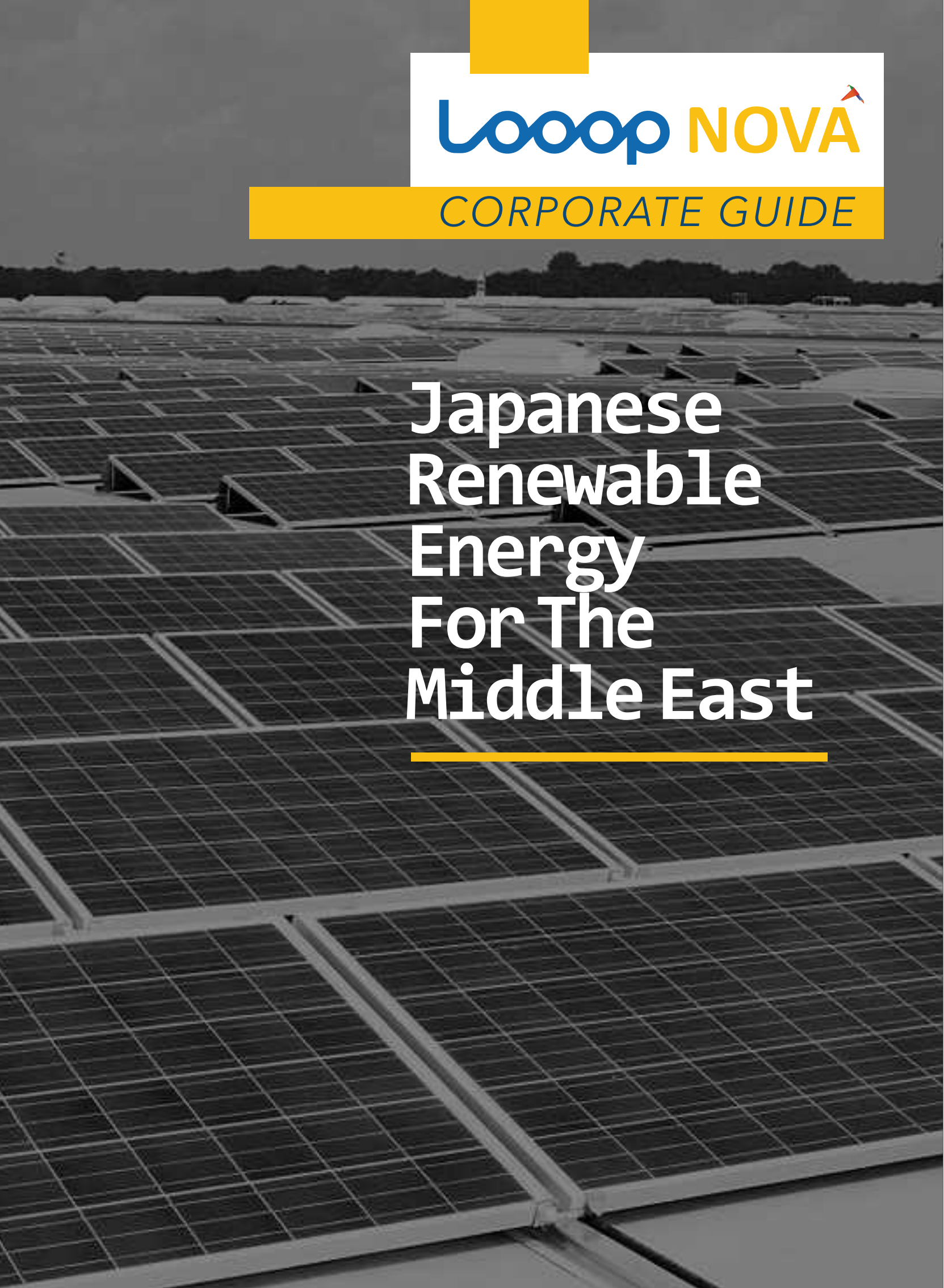


The logo for Loop NOVA, featuring the word "Loop" in blue and "NOVA" in yellow, with a small red and white icon above the "A".

Loop NOVA

CORPORATE GUIDE

A large-scale photograph of a solar farm with rows of solar panels stretching into the distance under a clear sky.

Japanese Renewable Energy For The Middle East

Loop NOVA SAL: JAPANESE RENEWABLE ENERGY FOR THE MIDDLE EAST

A brief history about Loop Inc. & its Lebanese arm Loop Nova SAL

A great commonality between Loop Inc (Japan) and its local branch LoopNova SAL (Lebanon) is that they were born as reactions to urgent situations in their respective countries.

Mr. Soichiro Nakamura founded Loop Inc (Japan) after the 2011 Tōhoku earthquake and tsunami as well as following the devastating Fukushima nuclear accident. Mr. Nakamura realized the potential of Renewable Energy to empower the Japanese people into a future that can avoid such disasters, while also protecting the environment and saving money for businesses and homes.

Loop Inc has grown exponentially over eight years and now has over 2000 projects installed in Japan with 200MWp of Solar Energy deployed and many more MegaWatts under deployment worldwide. Furthermore, Loop Inc launched Loop Denki which is a Power Purchase and Sales company that now serves 150,000 Japanese homes, businesses, and institutions, amassing a total revenue of 550 Million USD per year.

Loop Inc is also a manufacturer of many advanced and certified Renewable Energy products such as Solar PV modules, Inverters, Lithium-ion batteries, wind turbines, among others.

LoopNova SAL is Loop Inc's arm in Lebanon, bringing a pioneering solution to the Lebanese market with its flagship product of "Lease to Own" solar power plants.



Loop Vision & Facts

What we have done and what we plan to do as an integrated renewable energy company

Our name, Loop, contains the concept of "circulating energy," with the three o's representing sunlight, wind, and water. Starting with My Power Station Kit, which was announced after the establishment of the company, we launched a power retailing business that contributes to a shift into an era where energy will advance from "consumption" to "circulation."





February 2018
Loop NOVA
 Launched Lebanese branch LoopNova SAL to bring Japanese renewable energy to the Middle East and Eastern Europe.



February 2018
MY自家消費セット

Paradigm shifting from "Buying Electricity" to "Producing Electricity"



April 2017
Loopでんち

Started sales of Loop battery, an electric storage solution



January 2017
 Concluded a Memorandum of Understanding for Mega Solar Project to be co-developed with Kenya's Kitui county government.

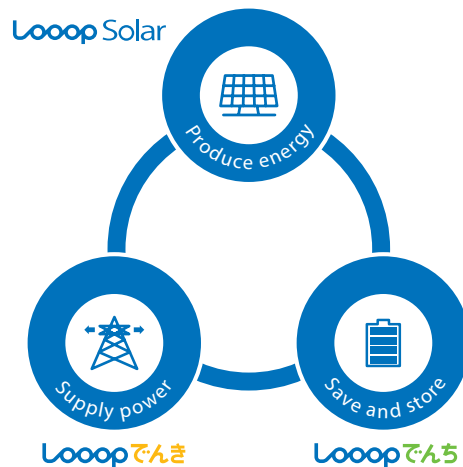
November 2016
LoopFIT

Started providing service for Loop FIT, a 30-year guarantee for solar power generation.



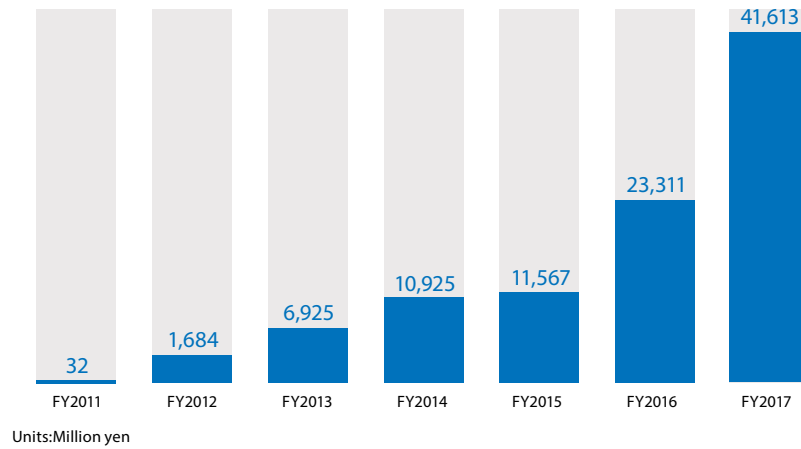
Our desire is to build an energy self-sufficient society

Loop provides 360-degree service with the aim of creating a society that is self-sufficient when it comes to energy. Based on technology born of experience, we continue to pursue greater technological innovations and accept the challenge to build next-generation energy solutions for all people.

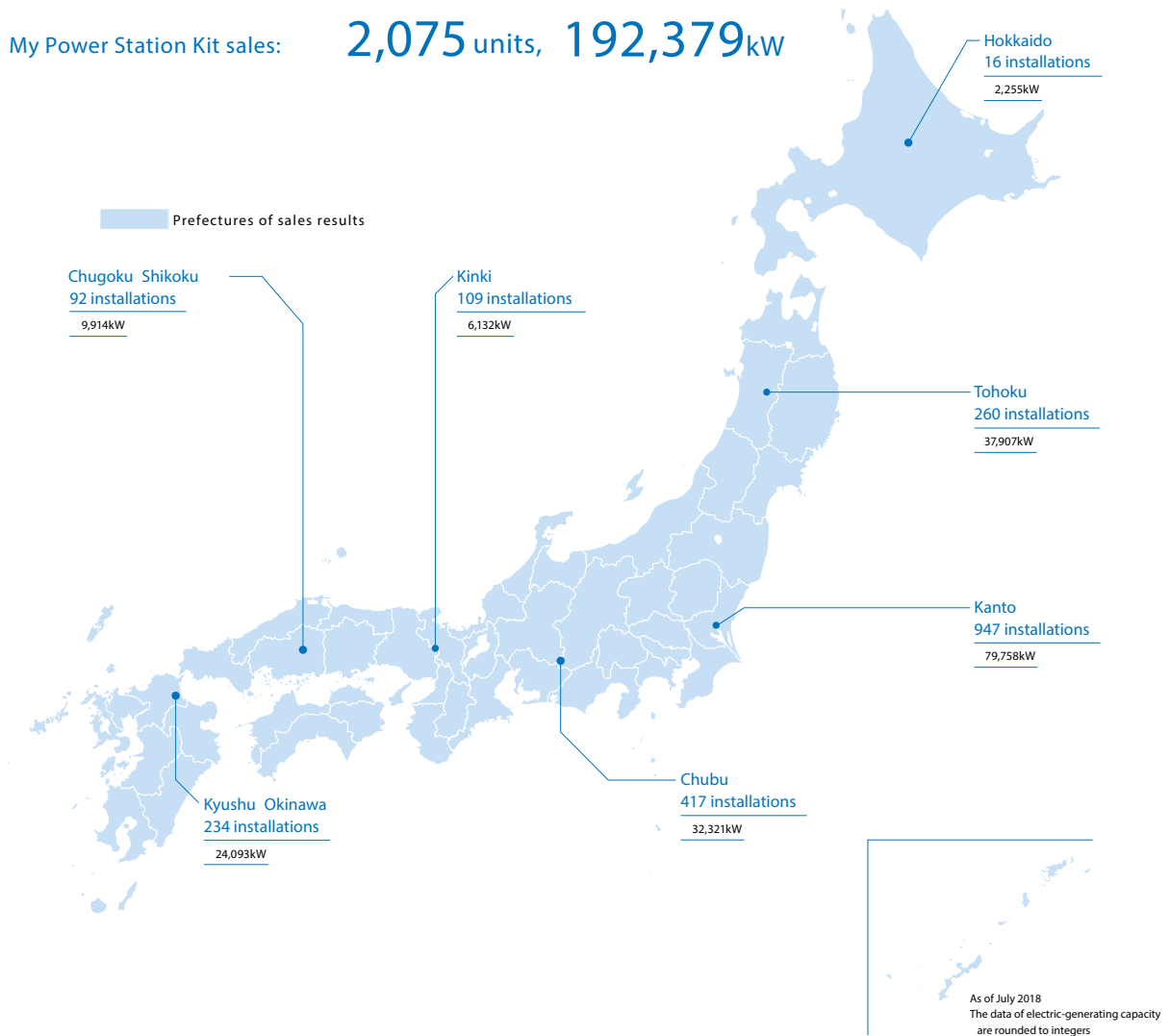


Sales

Our sales have grown every year since our company was established. By focusing on the enormous potential for solar power generation we have developed our own unique business with notable market expansion. Ideas and practicality are the driving forces behind Loop's growth.



My Power Station Kit sales: **2,075 units, 192,379kW**





Gunma Tsumagoi 1006 kW



Gunma Maebashi 911 kW



Tochigi Oyama 785 kW



Miyagi Shiraiishi 1003 kW



Tochigi Shioya 804 kW



Tochigi Yaita 640 kW



Fukushima Koriyama 1128 kW



Ibaraki Koibuchi 8878kw

8 OUT OF MORE THAN 2,075 PROJECTS...



URGENCY OF A SOLUTION FOR THE POWER SECTOR IN LEBANON

Consequences of the Lebanese power crisis

Pollution:
High cancer
rates

Causing
45%
of national
debt

≈ 2 billion
USD/year in
losses

Lebanon is in grave need of a fast and drastic solution to its chronic power problem. Businesses are struggling with expensive and unreliable energy that is shrinking their already compromised profit margins.

Furthermore, Lebanon has become one of the most polluted countries in the world resulting in the highest cancer rates per capita in the region. Finally, 45% of the Lebanese national debt is due to the yearly subsidization of Electricite du Liban (EDL). Until this issue is solved, foreign partners will look at Lebanon as a high financial risk country which in turn hinders investment, export and growth opportunities.

Businesses have been looking to the government to resolve this issue for the past 30 years with little to no results. **Before 2018, Lebanese companies were right to feel helpless and wait for the government to implement a solution, but today, technological advancements and cost reductions in the Solar Photovoltaic Energy industry have regiven the power to anyone with access to the sun.** Solar energy today is the cheapest energy source in the world, any business or NGO that doesn't adopt it is missing out on a significant opportunity to save money.



THE REAL, HEAVY COST OF ELECTRICITY FOR LEBANESE BUSINESSES

Pinpointing the exact cost of energy for businesses in Lebanon is not an easy task. The price is affected by many organic variables

01 EDL Outage frequency and how it coincides with the institution's peak loads

02 EDL Price per sector and geographic area

03 Generator efficiency and loading factor

04 Multi Generator versus single generator setups

05 Fuel Prices and their variability

AVERAGE ELECTRICITY COSTS BETWEEN EDL/GENERATOR OR EDZ

AREA	ENERGY MIX	COST
CENTRAL BEIRUT 1	80% EDL MEDIUM TENSION 20% DIESEL GENERATOR	12.5 ¢/kWh
CENTRAL BEIRUT 2	80% EDL TRI-TARIFF 20% DIESEL GENERATOR	14.7 ¢/kWh
CENTRAL BEIRUT 3	80% EDL SLAB 20% DIESEL GENERATOR	15.7 ¢/kWh
ZAHLE 1	100% EDZ MEDIUM TENSION	15.7 ¢/kWh
ZAHLE 2	100% EDZ TRI-TARIFF	18.3 ¢/kWh
ZAHLE 3	100% EDZ SLAB	19.7 ¢/kWh
REST OF LEBANON 1	50% EDL MEDIUM TENSION 50% DIESEL GENERATOR	17.3 ¢/kWh
REST OF LEBANON 2	50% EDL TRI-TARIFF 50% DIESEL GENERATOR	18.7 ¢/kWh
REST OF LEBANON 3	50% EDL SLAB 50% DIESEL GENERATOR	19.3 ¢/kWh
OFF GRID	100% DIESEL GENERATOR	25.3 ¢/kWh

THE MINISTRY OF ENERGY & WATER HAS ALREADY ISSUED A DECREE TO INCREASE THE AVERAGE GRID ELECTRICITY COST BY 57%

WHAT'S KEEPING MORE BUSINESSES FROM GOING SOLAR?

We are all aware of the subsidized loans for green energy projects but why isn't everyone using them?

Using subsidized loans to adopt solar allows Lebanese institutions to go solar with the system paid for in affordable installments over 10 to 14 years.

Using these loans enables businesses to spend less than what they are saving on a month to month basis. In that sense, companies using these loans would be making an immediate monthly profit by going green.

Although most businesses in Lebanon already know this, few of them have chosen to adopt it and see its benefits. The lack of adoption is not due to lack of intelligence and foresight by the Lebanese business people but rather, in our opinion, for the following reasons:



Trust and performance risk:

Implementing solar depends on the belief that it will generate the amount of energy that the contractor is promising it will produce. This also means that the business needs to trust the contractor's products and their performance for 25 years; meanwhile, the contractor is most of the time not liable for the production of the system beyond basic warranties. Also given the state of the economy in Lebanon, many local contractors are reducing quality in the aim of reducing cost which is seen in various sectors, this, in turn, has made the Lebanese consumer reluctant to adopt solar technologies, especially that it is a field that is relatively new to Lebanon. In short, the Lebanese business owner has to pay the monthly installment of the system, whether it produces the promised energy, or not and this creates hesitation.

“

In short, the Lebanese business owner has to pay the monthly installment of the system, whether it produces the promised energy, or not and this creates hesitation.

”

Pre-purchase headache:

Having the entirety of the performance risk on their shoulders, many interested parties end up shelving proposals from Solar companies simply due to the length of the process required before going forward. From first understanding the simple “how it works” questions around the system, to understanding the intricacies of how the system integrates into their network, the average time needed for a company to go solar (between an initial meeting and a signature) often exceeds 12 months. This is normal and understandable, it's a 25-year commitment, and it's wise to ask all the questions before the engagement.

“

Having the entirety of the performance risk on their shoulders, many interested parties end up shelving proposals from Solar companies simply due to the length of the process required before going forward.

”

An exhaustive, long banking process and 110% collaterals:

Banks have been vital in empowering the adoption of Renewable Energy and Energy efficiency. However, the process is still not business friendly, often requires a lot of paperwork, 110% collateral and around 1 year processing time. Also, the loan funds are intermittently available and disappear without warning. A key point is the significant required collateral to obtain the loan whereas most businesses would alternatively invest this collateral into the processes they know and trust such as their human resources, machines, marketing, overdrafts, etc. We have to admit that liquidity is scarce in the business field today and expecting companies to dedicate heavy collaterals towards solar has low chances of materializing.

“

A key point is the significant required collateral to obtain the loan whereas most businesses would instead want to invest this collateral into the processes they know and trust such as their human resources, machines, marketing, overdrafts, etc.

”

Loop NOVA SOLUTION: SOLAR ENERGY LEASING

A new and easy way for Lebanese businesses to install solar energy on their roofs or parking

Solar energy leasing is an innovative lease to own agreement offered by LoopNova SAL that is designed to make the transition to solar energy seamless, fast and safe. Instead of Lebanese institutions having to worry about the production of the system and the banking requirements and process, **LoopNova SAL designs, supplies, installs, maintains and insures the power plant at its own cost and charges a monthly rental fee that is proportional to the energy production** of the system expressed as "Performance Units (PU)".



Headache
&
Risk Free



Quick Transition
=
More Savings



Free Ownership
Transfer After
Rental Period



Possibility of
Early Lease
Termination



No Upfront Cost &
Low Guarantee
Required



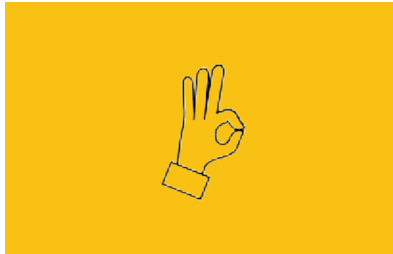
Reliable Japanese
& German
Products

In other words, if the system produces energy, the business pays for it, if not, they don't.



BENEFITS OF SOLAR ENERGY LEASING

0	0	0
Performance Risk	Maintenance Risk	Upfront Payments



Headache and risk-free:

Hailstorm? Dust accumulation? Defective components? Gunshots? LoopNova undertakes to replace any broken or faulty parts at its own cost while keeping the system in top form with around 24 preventive maintenance and cleaning visits per year.



Quick transition period means more savings:

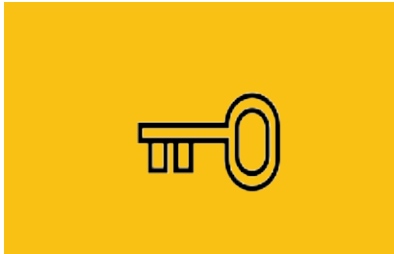
The system usually generates around 15-20% of its value in the form of energy savings for the client per year. Reducing the waiting time to go solar from 2 years to 6 months means that solar leasing is inherently more costs effective by around 30%

APPROVAL & CONSTRUCTION TIME

LOAN Up to 2 Years	
LEASING 3-6 Months	

BENEFITS OF SOLAR ENERGY LEASING

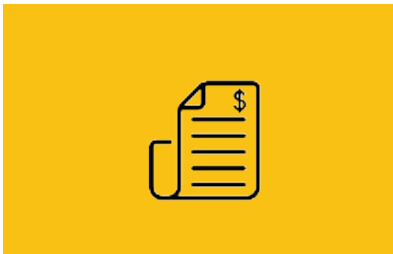
0	0	0
Performance Risk	Maintenance Risk	Upfront Payments



Ownership is transferred for free after the rental period:

After the completion of the leasing agreement period (ranging between 10 and 25 years), the client will receive the ownership of the system for free. The client may choose to engage LoopNova SAL or its subsidiaries in a maintenance agreement post-transfer

LEASE TO OWN | **FREE OWNERSHIP AFTER RENTAL PERIOD**



The possibility of early lease termination:

If the client decides to terminate the contract, they will have the option of buying the system. The price of the system decreases by around 6-8% per year. LoopNova SAL also includes financing options for the exit price for up to 3 years and at competitive interest rates making an exit smooth and affordable.

PURCHASE ANYTIME WITH THE SYSTEM PRICE DECREASING 6-8% PER YEAR

BENEFITS OF SOLAR ENERGY LEASING

0	0	0
Performance Risk	Maintenance Risk	Upfront Payments



Minimal guarantees required & Zero upfront costs:

Banks usually need 20% of the project value in cash and 110% of the project value in collateral to give a loan. LoopNova SAL requires a bank guarantee worth around six months to a year of the normal amount of the rental fee while requiring zero upfront payment. The bank guarantee usually equates to about 10% to 20% of the installed asset's value.

LOAN CASH: 20-30% COLLATERAL: 110%	LEASING CASH: 0% COLLATERAL: MINIMAL
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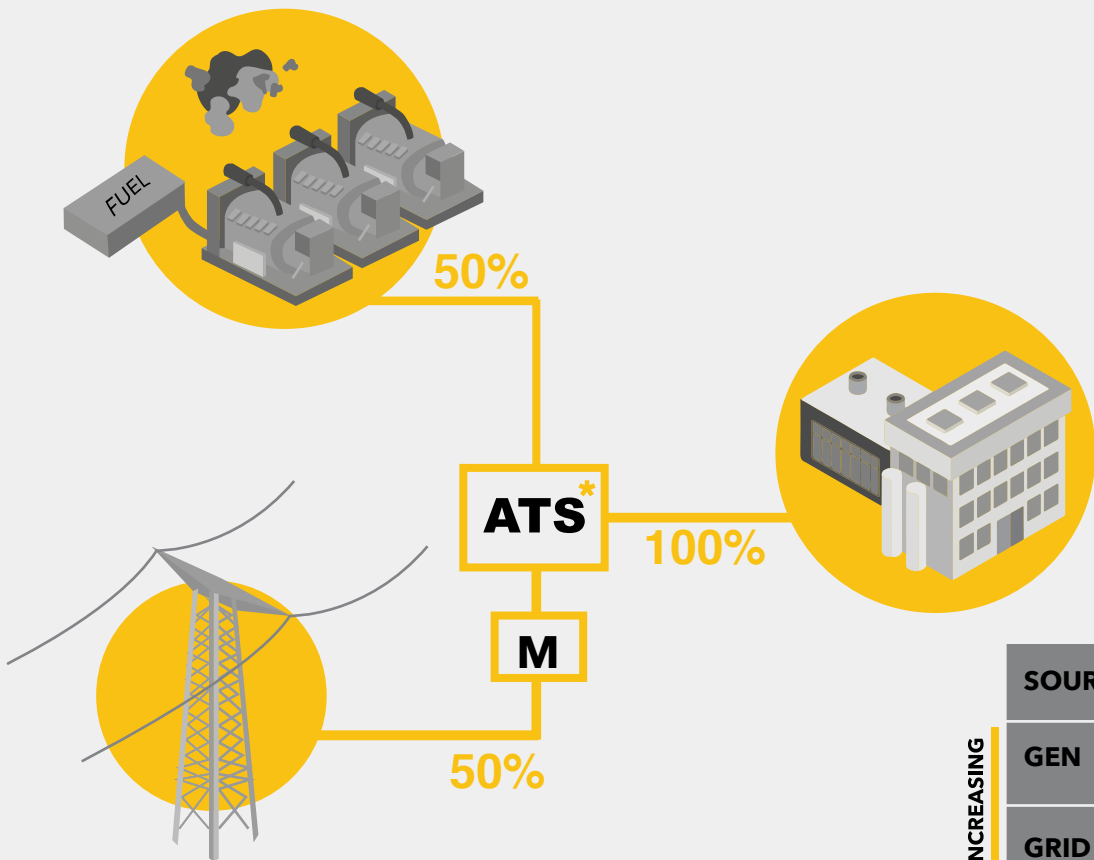
Reliable Japanese & German products:

Thanks to the nature of the leasing agreement, LoopNova is not competing to reach the lowest sales price but instead is interested in having the most reliable system over the years to come. This is why LoopNova uses grade A Japanese and German components for its projects.



BEFORE

Solar Energy Leasing



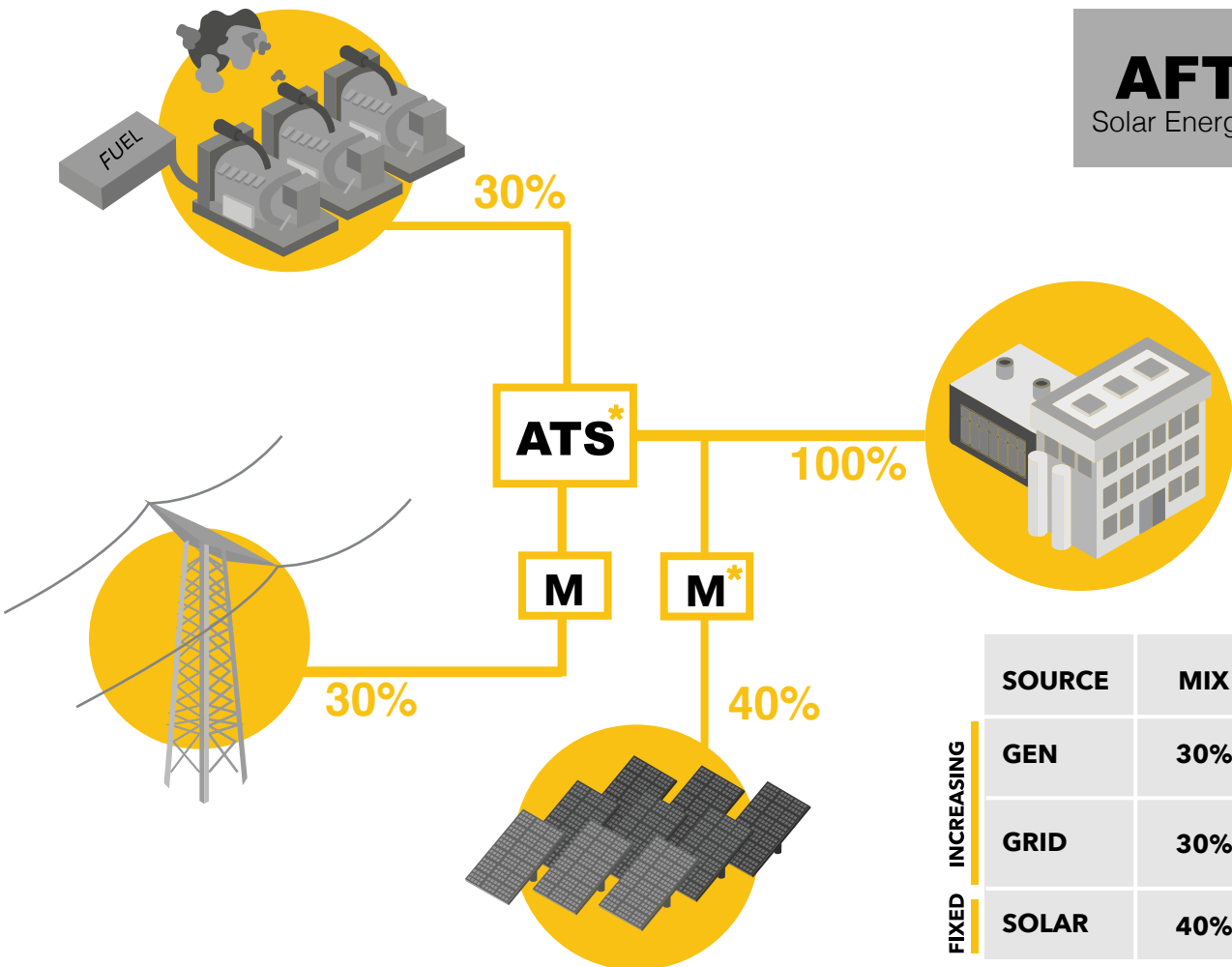
	SOURCE	MIX	COST
INCREASING	GEN	50%	21to36 ¢/kWh
	GRID	50%	12to13.3 ¢/kWh

(Example, actual numbers may vary)

At the date of writing this document, the Ministry of Energy and Water has already issued a decree to increase the grid power average price by around %57

AFTER

Solar Energy Leasing

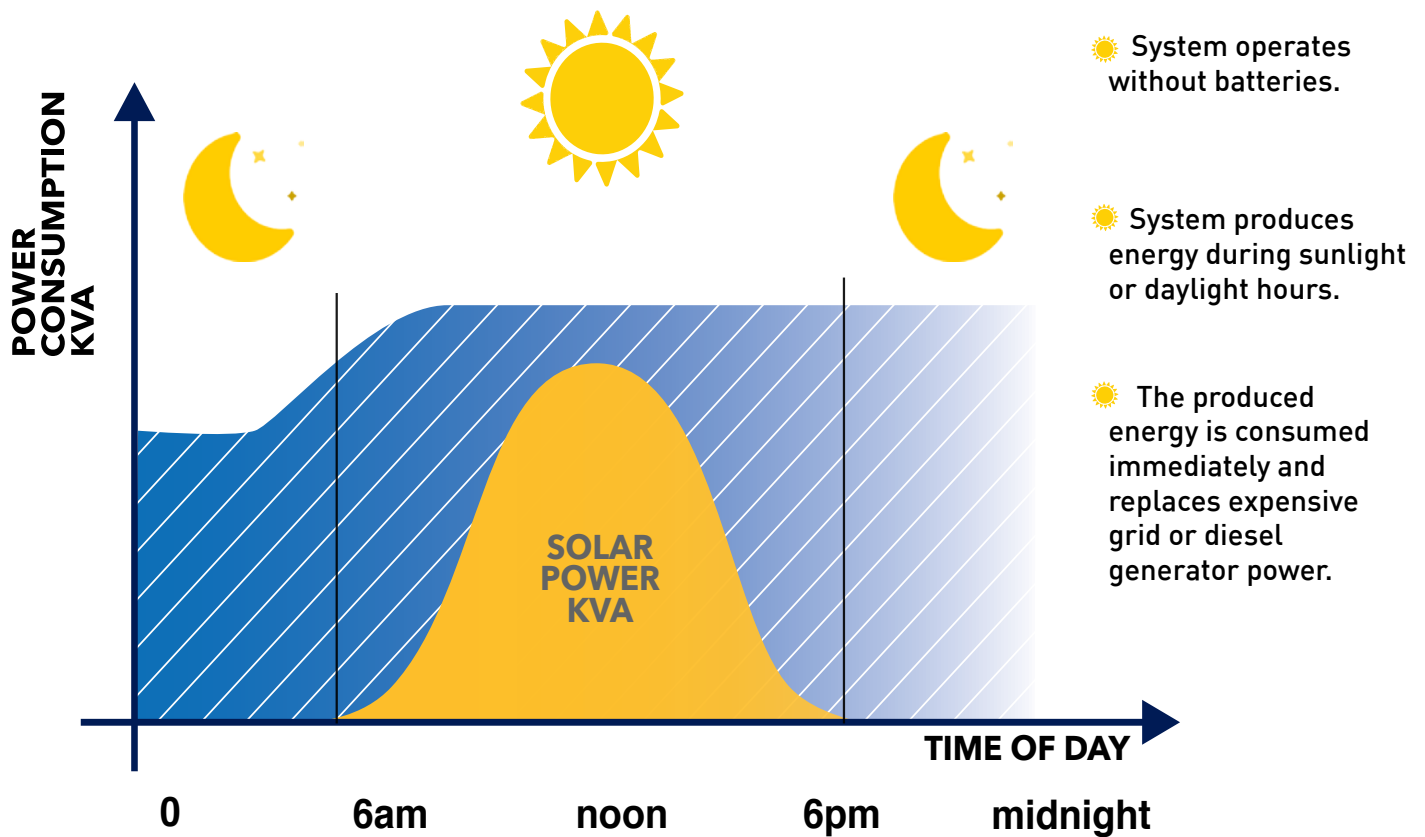


	SOURCE	MIX	COST
INCREASING	GEN	30%	21to36 ¢/kWh
	GRID	30%	12to13.3 ¢/kWh
FIXED	SOLAR	40%	10.5** ¢/kWh

* **ATS** Automatic Transfer Switch

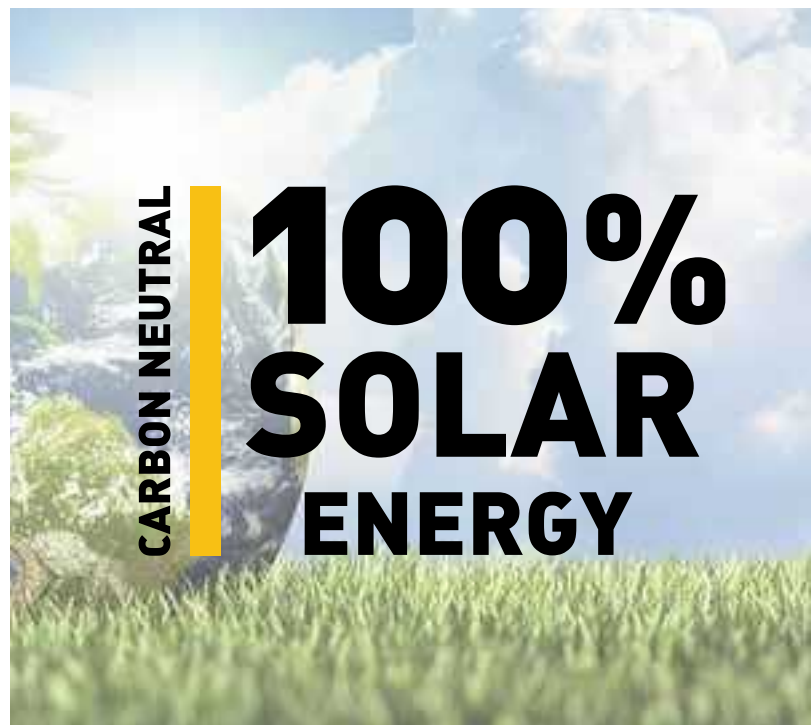
* **M** Meter

** Actual leasing cost may vary according to project size, construction cost, business's energy consumption patterns, and other factors.



FUTURE: 100% SOLAR IN 3 TO 5 YEARS

Once the price of lithium ion batteries goes down or grid power becomes available 24/7, LoopNova will offer, for free, a system expansion to cover 100% of your consumption from solar energy.



HOW MUCH MONEY DOES SOLAR LEASING SAVE BUSINESSES?

AN EASY COMPARISON

As described in earlier sections, around 90% of Lebanese institutions pay approximately 14.65 cents/KWh to 19.3 cents/KWh with some facilities reaching 25cents/KWh for the energy coming from their utility or diesel generator. Solar leasing's equivalent energy price ranges between 9 and 13 cents/KWh depending on multiple factors namely the solar system's construction cost and a power consumption profile that suits solar projects.

In all cases, most projects achieve a saving of 40% to 65% on their existing energy cost. Noting that this saving is made on the portion of the business's energy that is replaced by solar energy, and not 100% of the business' energy.

CENTRAL BEIRUT 1	12.5 ¢/kWh	→
CENTRAL BEIRUT 2	14.7 ¢/kWh	→
CENTRAL BEIRUT 3	15.7 ¢/kWh	→
ZAHLE 1	15.7 ¢/kWh	→
ZAHLE 2	18.3 ¢/kWh	→
ZAHLE 3	19.7 ¢/kWh	→
REST OF LEBANON 1	17.3 ¢/kWh	→
REST OF LEBANON 2	18.7 ¢/kWh	→
REST OF LEBANON 3	19.3 ¢/kWh	→
OFF GRID	25.3 ¢/kWh	→

SOLAR ENERGY
LEASING AVERAGE
COST

10.5 ¢/KWh

Grid &
Diesel Cost
INCREASING

Solar Leasing
Cost
FIXED

*Actual leasing cost may vary according to project size, construction cost, business's energy consumption patterns, and other factors.



THE PER 1000 SQUARE METER ANALYSIS

Every 1000 square meters of solar panels can produce around 180 KW of clean electrical power

In the Lebanese climate, every KW of Solar Panels produces 1,450 KWh/(KW*year) up 1,900 KWh/(KW*year) depending on the orientation and angle of the panels and if they follow the sun's movement using motors or not.

Thus each 1000 square meter can produce 261,000 KWh/year to 342,000 KWh/year.

Given that generally, the average saving realized by going solar on the current cost of energy (EDL + Diesel) is around 7 cents/KWh (could be between 4 cents/KWh and 16 cents/KWh in savings depending on the project) this translates to approximately 18,000/year to 24,000 \$/year of savings on average for every 1000 square meter of PV panels installed.

The exact savings will depend mainly on the specific project conditions with some projects making more of a savings per KWh and some projects requiring empty spaces between the panels to avoid them casting shade on each other.

“

Approximately 18,000\$/-year to 24,000 \$/year of savings on average for every 1000 square meter of PV panels installed.

”

THE PROCESS



CALL OR EMAIL US!

The process always starts with a simple phone call or email upon which LoopNova's skilled consultants will schedule a meeting with the facility decision makers



INITIAL MEETING

The initial meeting is key for LoopNova to understand the facility's particularities and lay out an action plan going forward.



DATA COLLECTION & SITE SURVEY

The initial meeting is followed by an initial site survey and data collection effort based on which a conceptual design is presented to the company around one week after the initial meeting.



LOI SIGNING

If all the key concepts are clear and approved, a nonbinding letter of intent (LOI) is signed, and a detailed site survey and data collection are performed.



PROJECT DESIGN

Solar energy project design involves the use of high tech tools such as drones, power loggers, and various advanced software and 3D modeling platforms. This process takes around 2 to 4 weeks to complete from the signature of the LOI.



FINAL OFFER & CONTRACT SIGNING

Upon completion of the design phase, LoopNova will present a final offer along with a leasing contract and its appendices for review and signature.



INSTALLATION

After the signature, LoopNova will require between 3 to 6 months to finance, supply and install the solar photovoltaic system after which it is connected to the facility's grid and starts producing energy.





Japanese renewable energy for the Middle East

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