

<Shizen Energy Group Completed Projects①>



Koshi City & Kumamoto Flour Milling Co., Ltd. Photovoltaic Power Plant

Location: Kumamoto
Generated energy output: approx. 1.0 megawatts
Completion of construction: December, 2012
This utilizes the site of a waste incineration plant in Koshi City, and was the first time for companies within the prefecture to make an effort toward a mega solar power generation project.



Ozu Photovoltaic Power Plant *

Location: Kumamoto
Generated energy output: approx. 1.1 megawatts
Completion of construction: September, 2013
This was built to utilize the site of a pig farm that had been unused for about 30 years. Elements such as the concrete foundation remained, making activities such as housing development difficult. However, by devising solutions for such aspects as the engineering and installation of the solar cell modules, the lot was reborn as an area that creates new value.



Koshi Farm Project Photovoltaic Power Plant *

Location: Kumamoto
Generated energy output: approx. 1.0 megawatts
Completion of construction: March, 2014
This is a Project that gives back a part of earnings to local agriculture promotion.



Wakayama Minabe Photovoltaic Power Plant

Location: Wakayama
Generated energy output: approx. 1.1 megawatts
Completion of construction: April, 2014
This plant was built on a land owned by forestry cooperative. The site adjacent to the forest which produces the local specialty, wood charcoal lives together, growing the forest.



Minami-ise Shizen Energy Photovoltaic Power Plant *

Location: Mie
Generated energy output: approx. 1.1 megawatts
Completion of construction: September, 2014
This is the first power station and was built to utilize industrial complex which had been unused for 17 years.



Akita Ohdate Shizen Energy Photovoltaic Power Plant *

Location: Akita
Generated energy output: approx. 2.2 megawatts
Completion of construction: January, 2015
This is the 3rd power station and was built to utilize the meat center which had been unused for 20 years.



Green Factory Center Shirakawa Photovoltaic Power Plant

Location: Fukushima
Generated energy output: approx. 0.5 megawatts
Completion of construction: January, 2015
Though the ground had been soft, its quality and safety were enhanced by ground improvement with cement. Wood chips were spread for preventing from the grasses and brown fences were used in consideration for the landscape.



TeRaS Nishi-Izu Photovoltaic Power Plant

Location: Shizuoka
Generated energy output: approx. 2.0 megawatts
Completion of construction: February, 2015
This power plant was built to utilize a vacant lot which used to be a mining site for silica stones and had been unused for years.

* IPP *IPP refers to projects owned by Shizen Energy Inc. or its related companies, or projects invested by Shizen Energy Inc. or its affiliated companies through special purpose companies, etc.



Kumamoto Flour Milling Co., Ltd. Benten Photovoltaic Power Plant

Location: Kumamoto
Generated energy output: approx. 1.0 megawatts
Completion of construction: March, 2013
This is a mega solar power station that effectively utilizes the rooftops of three warehouses.



Visual Vision Nasukarasuyama City Photovoltaic Power Plant

Location: Tochigi
Generated energy output: approx. 0.9 megawatts
Completion of construction: January, 2014
This utilizes the grounds of the former Junior High School (demolished in March, 2012). The power station is equipped with storage batteries for power supply and they will contribute to evacuation locations in times of disaster.



Sanwa concrete Co., Ltd. Photovoltaic Power Plant

Location: Yamaguchi
Generated energy output: approx. 1.0 megawatts
Completion of construction: April, 2014
The plant was built on a former water storage reservoir which had been abandoned for more than twenty years.



Ikawa Project Photovoltaic Power Plant

Location: Akita
Generated energy output: approx. 1.5 megawatts
Completion of construction: July, 2014
This plant was built to utilize empty lots in a ski resort. Good technique was needed to control the effects of snow and also utilize the enough amount of solar radiation in the summer time.



Sannan 2nd Photovoltaic Power Plant

Location: Hyogo
Generated energy output: approx. 0.8 megawatts
Completion of construction: December, 2014
This power plant was built to utilize a vacant lot which used to be a parking space on golf field. This is designed to reduce noise of inverter by placing sound barriers and also to care about residents living in the vicinity by shaping drainage canal.



Kumamoto Kikuchi Shizen Energy Photovoltaic Power Plant *

Location: Kumamoto
Generated energy output: approx. 1.2 megawatts
Completion of construction: January, 2015
This is the 2nd power station and 5th mega solar project in Kumamoto.



Hiroshima Yuki Shizen Energy Photovoltaic Power Plant

Location: Hiroshima
Generated energy output: approx. 0.6 megawatts
Completion of construction: January, 2015
This was built to utilize a vacant lot which had been unused for 10 years and is planned to keep operating and managing for 20 years with local companies.



Juwi Shizen Energy Fukushima Tanagura Photovoltaic Power Plant

Location: Fukushima
Generated energy output: approx. 0.6 megawatts
Completion of construction: March, 2015
This is the first plant of Juwi Shizen Energy Inc. and also the first M&A case of our group.
This plant is built on the slope ground with ingenuity at designing and setting panels.



Nasunogahara Photovoltaic Power Plant

Location: Tochigi
Generated energy output: approx. 0.9 megawatts
Completion of construction: March, 2015

This plant was built to utilize a vacant lot which used to be grass farm and had been unused for 40 years.
Development, construction, operation and maintenance have been done with local company.



Shibushi Natsui Photovoltaic Power Plant

Location: Kagoshima
Generated energy output: approx. 0.6 megawatts
Completion of construction: March, 2015



Nasu Toyohara 1 Photovoltaic Power Plant *

Location: Tochigi
Generated energy output: approx. 1.0 megawatts
Completion of construction: March, 2015

A passion for renewable energy of local corresponded with our corporate philosophy, so that this project has been completed with a big support by community. It provides approximately 3 megawatts of renewable energy together with Nasu Toyohara 2 Photovoltaic Power Plant.



Sukagawa-shi Tateyama Photovoltaic Power Plant

Location: Fukushima
Generated energy output: approx. 0.6 megawatts
Completion of construction: May, 2015

This project supported a local company to expand into industrial photovoltaic power generation business. All the party involved, the owner, the finance and the landowner, are local people and businesses.



Takeda-Kibougaoka Photovoltaic Power Plant *

Location: Oita
Generated energy output: approx. 1.6 megawatts
Completion of construction: July, 2015

The business proprietor has been interested in renewable energy business in the region. Shizen Energy Inc. could realized its project by playing a part in the planning and development.



Tainai Shizen Energy 2 Photovoltaic Power Plant *

Location: Niigata
Generated energy output: approx. 1.8 megawatts
Completion of construction: September, 2015

This is our 11th power plant and the first project in Niigata prefecture.



Nisso-Kagoshima Photovoltaic Power Plant

Location: Kagoshima
Generated energy output: approx. 0.5 megawatts
Completion of construction: December, 2015

This power plant is surrounded by vegetable fields with a great view. To utilize the flat land, as many panels as possible were placed.



Nobatake Photovoltaic Power Plant *

Location: Oita
Generated energy output: approx. 0.4 megawatts
Completion of construction: December, 2015

This project has been completed by gaining understanding from the community and also prior consultations based on a ordinance in Yufu city. This is the 13th project in Shizen Energy Group.



Higashi-kiwa Photovoltaic Power Plant

Location: Yamaguchi
Generated energy output: approx. 0.5 megawatts
Completion of construction: March, 2015

This project was developed by Shizen Energy Inc. and juwi Shizen Energy Inc. worked for engineering and procurement.



Miyazaki Tano Photovoltaic Power Plant *

Location: Miyazaki
Generated energy output: approx. 0.6 megawatts
Completion of construction: March, 2015

This project was developed by Shizen Energy Inc. and juwi Shizen Energy Inc. worked for engineering and procurement.



Shinja 2 Photovoltaic Power Plant *

Location: Miyazaki
Generated energy output: approx. 1.2 megawatts
Completion of construction: May, 2015

This was built to utilize a vacant lot which used to be a golf practice range. This is our 6th power plant and 8th mega solar project in Kyushu area.



Nasu Toyohara 2 Photovoltaic Power Plant *

Location: Tochigi
Generated energy output: approx. 2.1 megawatts
Completion of construction: June, 2015

A passion for renewable energy of local corresponded with our corporate philosophy, so that this project has been completed with a big support by community. It provides approximately 3 megawatts of renewable energy together with Nasu Toyohara 1 Photovoltaic Power Plant.



Tainai Shizen Energy Photovoltaic Power Plant *

Location: Niigata
Generated energy output: approx. 0.6 megawatts
Completion of construction: September, 2015

This is our 10th power plant and the first project in Niigata prefecture.



Kumanishiki-Ajioka Photovoltaic Power Plant *

Location: Kumamoto
Generated energy output: approx. 2.3 megawatts
Completion of construction: December, 2015

This is our 12th power plant and the 3rd project in Kumamoto prefecture.



Nisso - Shiga Photovoltaic Power Plant

Location: Shiga
Generated energy output: approx. 0.4 megawatts
Completion of construction: December, 2015

This is our first project in Shiga Prefecture and was built to utilize a place which had been unused for almost 10 years. Though this area is called“Hokkaido in Shiga”due to heavy snowfall, using appropriate racks achieved a power plant which can work in a snowy area.



Shincha 1 Photovoltaic Power Plant *

Location: Miyazaki
Generated energy output: approx. 2.0 megawatts
Completion of construction: December, 2015

This is the first project of“Minami-Kyushu Shizen Energy Fund”which mainly targets at South Kyushu area. As for Shizen Energy Group achievements, this is the 2nd plant in Miyazaki prefecture and 14th project as IPP.



Kunisaki 2 Shizen Energy Photovoltaic Power Plant *

Location: Oita
Generated energy output: approx. 2.4 megawatts
Completion of construction: December, 2015

As for Shizen Energy Group achievements, this is the 4th plant in Oita prefecture and 15th project as IPP.



Onomichi Mitsugi Photovoltaic Power Plant

Location: Hiroshima
Generated energy output: approx. 0.6 megawatts
Completion of construction: March, 2016

This plant was built to utilized a chicken farm. Traverse modules were used on the terraced ground from south to north. This is the 3rd project in Hiroshima Prefecture.



Yamaga Kahoku Photovoltaic Power Plant

Location: Kumamoto
Generated energy output: approx. 0.6 megawatts
Completion of construction: March, 2016

This power plant was built to utilize a vacant lot which used to be a mining site and had been unused for 30 years. This is the 7th power plant in Kumamoto prefecture.



Hirono Photovoltaic Power Plant

Location: Iwate
Generated energy output: approx. 25.0 megawatts
Completion of construction: May, 2016

This was built to utilize the vacant lot that used to be a 41,000 m² size golf park. At the end of March 2016, this is the biggest project that JSE engaged in. Two different piles are used for the racks in consideration of the huge ground. As for SEG achievements, this is the 6th plant in Tohoku area and the first project in Iwate prefecture.



Nasushiobara Sasanuma1 Photovoltaic Power Plant

Location: Tochigi
Generated energy output: approx. 1.8 megawatts
Completion of construction: December, 2016

This is one of the investment asset projects of “Kenedix Shizen Energy Fund” which is jointly established and managed by Kenedix, Inc. and Shizen Energy Inc. Because of condition of the land, creative solutions for piling and discharged water were required.



Nasushiobara Sasanuma4 Photovoltaic Power Plant

Location: Tochigi
Generated energy output: approx. 1.3 megawatts
Completion of construction: December, 2016

This is one of the investment asset projects of “Kenedix Shizen Energy Fund” which is jointly established and managed by Kenedix, Inc. and Shizen Energy Inc. The wasteland was recreated as a PV power plant by cooperation of Shizen Energy Inc, the landowner and the government. and it became the 7th PV power plant in Tochigi Prefecture.



Satsuma Sendai Kaitakuchi Photovoltaic Power Plant

Location: Kagoshima
Generated energy output: approx. 1.8 megawatts
Completion of construction: December, 2016

This is the 3rd project of “Minami-Kyushu Shizen Energy Fund” which mainly targets at South Kyushu area. As for Shizen Energy Group achievements, this is the 4th plant in Miyazaki prefecture and 18th project as IPP.



Takasago Nakasuji Photovoltaic Power Plant

Location: Hyogo
Generated energy output: approx. 0.8 megawatts
Completion of construction: March, 2017

This photovoltaic power plant utilizes the place that had been idle for many years. Shizen Energy Groups completed from development, engineering to procurement and a local construction company completed the establishment of the project.



Otawara city Terajuku1 Photovoltaic Power Plant

Location: Tochigi
Generated energy output: approx. 1.7 megawatts
Completion of construction: January, 2016

This is the first power plant of “Kenedix Shizen Energy Fund” which is jointly established and managed by Kenedix, Inc. and Shizen Energy Inc.. This is the 5th power plant in Tochigi Prefecture.



Fukuoka Nougata Photovoltaic Power Plant

Location: Fukuoka
Generated energy output: approx. 0.7 megawatts
Completion of construction: March, 2016

The land owner is a cattle farmer and the ground was secured by relocating a horse house stable. This plant was well-cared for the slope and water discharge and designed in consideration for environment. This is the first project in Fukuoka Prefecture.



Miyazaki Takaharu Photovoltaic Power Plant *

Location: Miyazaki
Generated energy output: approx. 0.9 megawatts
Completion of construction: May, 2016

This is the 2nd project of “Minami-Kyushu Shizen Energy Fund” which mainly targets at South Kyushu area. 3 kinds of racks are used in consideration of the geological condition. As for Shizen Energy Group achievements, this is the 3rd plant in Miyazaki prefecture.



Onuma Photovoltaic Power Plant *

Location: Hokkaido
Generated energy output: approx. 1.8 megawatts
Completion of construction: July, 2016

This plant was built to utilize a vacant lot of 36,000 m² in the heart of nature in Hokkaido. This is the first plant in Hokkaido and 17th project as IPP.



Kagoshima Kirishima Photovoltaic Power Plant

Location: Kagoshima
Generated energy output: approx. 20.0 megawatts
Completion of construction: December, 2016

We were able to realize the construction of a 13km long distance high capacity buried power transmission line which is quite long for a typical solar power generation plant. It took local companies, government, and local residents working closely together to tackle unprecedented challenges in order to make this project.



Nasumachi Terako Photovoltaic Power Plant

Location: Tochigi
Generated energy output: approx. 1.3 megawatts
Completion of construction: December, 2016

This is one of the investment asset projects of “Kenedix Shizen Energy Fund” which is jointly established and managed by Kenedix, Inc. and Shizen Energy Inc. The ground including deserted cultivated land was recreated as a PV power plant and it became the 8th PV power plant in Tochigi Prefecture.



Green Factory Center Photovoltaic Power Plant (Expansion)

Location: Fukushima
Generated energy output: approx. 1.5 megawatts
Completion of construction: March, 2017

This mega solar power plant utilizes a part of the plant factory site owned by Kewpie Corporation. This is the expansion of the existing photovoltaic power plant that Shizen Energy Group contributed from development to EPC and completed in 2015.



Niigata Suzuki Farm Solar Photovoltaic Power Plant

Location: Niigata
Generated energy output: approx. 1.4 megawatts
Completion of construction: May, 2017

This photovoltaic power plant uniquely generates both power and crops as called “solar sharing,” which is the first project for Shizen Energy Group. The project utilizes a part of farmland of 18,900 square meters and constructed mega solar power plant. Production of grass excellent in light shielding resistance is carried out under power generation facilities.



Hokuto Takane-Ohinata Photovoltaic

Location: YamagataPower Plant*

Generated energy output: approx. 0.5 megawatts

Completion of construction: June, 2017

Developed by Shizen Energy Inc. and constructed by an external EPC. It is the 21st IPP mega solar plant as the Shizen Energy Group, and is the 3rd in Yamanashi prefecture. The plant is built on a former hospital ground, and gives full consideration to the surrounding landscape with remnant forests, planting, etc.



Hokuto Takane-Kurosawa Photovoltaic

Location: YamagataPower Plant*

Generated energy output: approx. 0.5 megawatts

Completion of construction: May, 2017

Developed by Shizen Energy Inc. and constructed by an external EPC. It is the 19th IPP mega solar plant as Shizen Energy, and is the first in Yamanashi prefecture along with Takane Muko-Oshimo Photovoltaic Power Plant. The plant utilizes parts of a woodland which was severely damaged by pine weevils.



Ishinomaki Numazu Photovoltaic Power Plant

Location: Miyagi

Generated energy output: approx. 14.0 megawatts

Completion of construction: November, 2017

The first mega-solar project Shizen Energy Group has completed in Miyagi prefecture. juwi Shizen Energy Inc. handled the EPC, and juwi Shizen Operations Inc. is in charge of the O&M. Leveraging the terrain of an existing golf course in site preparation, the area in which panels could be installed was expanded efficiently.



Ohtawara city Terajuku2 Photovoltaic

Location: TochigiPower Plant

Generated energy output: approx. 1.8 megawatts

Completion of construction: November, 2017

This is one of the investment asset projects of “Kenedix Shizen Energy Fund” which is jointly established and managed by Kenedix, Inc. and Shizen Energy Inc. Reclaiming a former golf course ground, it is the 9th mega solar project completed by the Shizen Energy Group in Tochigi prefecture.



Karatsu Minato Wind Power Plant*

Location: Saga

Generated energy output: approx. 2.0 megawatts

Completion of construction: February, 2018

The very first wind power plant delivered by the Shizen Energy Group, with the group being responsible from development to construction. Cooperation was required from a wide range of organizations including local governments, companies and banks for them to work closely to realize the project. 1% of profit is to be given back to local agricultural activities.



Minabe 2 Wind Power Plant*

Location: Wakayama

Generated energy output: approx. 1.1 megawatts

Completion of construction: March, 2018

A project developed and commenced operationally by Shizen Energy Inc., with the power generation business managed through their SPC. Engineering and construction handled by juwi Shizen Energy Inc.



Osaka Izumisano Photovoltaic Power Plant*

Location: Osaka

Generated energy output: approx. 0.6 megawatts

Completion of construction: July, 2018

A project developed and commenced operationally by Shizen Energy Inc., with the power generation business managed through their SPC. Engineering and construction handled by juwi Shizen Energy Inc. The group's first project in Osaka.



Tsubatamachi Sakado Photovoltaic

Location: IshikawaPower Plant*

Generated energy output: approx. 1.5 megawatts

Completion of construction: September, 2018

Agricultural land conversion of idle fields was achieved with the support of local communities and the town office. Minimized civil work by making use of the inclined terraced rice fields. Racks are solidly designed to endure 2m of snow. The group's first project in Ishikawa prefecture.



Takane Muko-Oshimo Photovoltaic

Location: YamagataPower Plant*

Generated energy output: approx. 0.5 megawatts

Completion of construction: May, 2017

Developed by Shizen Energy Inc. and constructed by an external EPC. It is the 20th IPP mega solar plant as the Shizen Energy Group, and is the first in Yamanashi prefecture along with Hokuto Takane-Kurosawa Photovoltaic Power Plant. Operates on a distributed type PCS.



Nasushiobara-shi Nabekake 3 Photovoltaic

Location: TochigiPower Plant

Generated energy output: approx. 2.3 megawatts

Completion of construction: Aug, 2017

This plant was built to utilize an area which had been idle for many years. The know-how of Shizen Energy Group was fully leveraged to overcome the challenges of grid connection and to realize the project. Development and EPC handled by the Group. This is the 9th plant in Tochigi prefecture.



Ohtawara city Terajuku3 Photovoltaic

Location: TochigiPower Plant

Generated energy output: approx. 1.2 megawatts

Completion of construction: November, 2017

This is one of the investment asset projects of “Kenedix Shizen Energy Fund” which is jointly established and managed by Kenedix, Inc. and Shizen Energy Inc. Reclaiming a former golf course ground, it is the 10th mega solar project completed by the Shizen Energy Group in Tochigi prefecture.



Nasumachi Toyohara Otsu Photovoltaic

Location: TochigiPower Plant

Generated energy output: approx. 1.2 megawatts

Completion of construction: November, 2017

This is one of the investment asset projects of “Kenedix Shizen Energy Fund” which is jointly established and managed by Kenedix, Inc. and Shizen Energy Inc. Revived an area which used to be a long-abandoned sand pit after implementing thorough dust and drainage measures. The 11th PV power plant in Tochigi prefecture as a mega solar project completed by the Shizen Energy Group.



Kumanishiki-Ajioka Photovoltaic Power Plant (Expansion)*

Location: Kumamoto

Generated energy output: approx. 0.8 megawatts

Completion of construction: April, 2018

The expansion of an existing IPP mega solar power plant of the Shizen Energy Group. Development, EPC, and O&M delivered by the group.



Shibushi Matsuyama Oharataku Photovoltaic

Location: KagoshimaPower Plant*

Generated energy output: approx. 0.6 megawatts

Completion of construction: May, 2018

A project developed and commenced operationally by Shizen Energy Inc., with the power generation business managed through their SPC. Engineering and construction handled by juwi Shizen Energy Inc.



Miyazaki Takaoka Photovoltaic Power Plant*

Location: Miyazaki

Generated energy output: approx. 1.8 megawatts

Completion of construction: September, 2018

A project which effectively utilized a steep fallow property. Fully leveraged the engineering and construction expertise of juwi Shizen Energy Inc. to accommodate an average inclination of 20°.



Obuse Matsukawa Hydraulic Power Plant*

Location: Nagano

Generated energy output: approx. 0.2 megawatts

Completion of construction: November, 2018

The Shizen Energy Group's first delivery of a small hydraulic power plant. Development to construction completion handled by Shizen Energy Inc. The project was realized with the cooperation of various local stakeholders including Obuse Town, local financial institutions, and Nagano prefecture. Implemented is the Francis turbine of our small hydraulic power generation project partner, GUGLER Water Turbines GmbH.