



SDG7 Energy Compact of Shimokawa Town
A next Decade Action Agenda to advance SDG7 on sustainable energy for all, in line with the goals of the Paris Agreement on Climate Change

SECTION 1: AMBITION

1.1. Ambitions to achieve SDG7 by 2030. [Please select all that apply, and make sure to state the baseline of each target]

(Member States targets could be based on their NDCs, energy policies, national five-year plans etc. targets for companies/organizations could be based on their corporate strategy)

<input type="checkbox"/> 7.1. By 2030, ensure universal access to affordable, reliable and modern energy services.	<p>Target(1): Expand Local for Local Consumption and Production for Renewable Energy Heat Supply Time frame: 2030 Context for the ambition(s): To ensure reliable and modern energy services at all times, and also in preparation for blackouts due to disasters, our Energy Conservation Strategy is adopted as the policy objective, and states to aim 60% [provisional] in 2030(56% in 2019) on self-sufficiency rate in thermal energy by further expanding biomass, and incorporating new technologies. ※Local for Local Consumption and Production: To locally produce services consumed by our communities, circulate money locally by plugging the leaks, create new industries and employment, and reducing vulnerability caused by outsourcing.</p>
<input type="checkbox"/> 7.2. By 2030, increase substantially the share of renewable energy in the global energy mix.	<p>Target(2): Renewable Power for All Time frame:2030 Context for the ambition(s): Shimokawa Town aims “Production of Local for Local Consumption”, and energy also follows that policy. We will provide 100% or more of our energy demand for out-of-town needs in the initiative of Shimokawa’s private sectors in the 2020s. This contributes to the increase of the renewable energy rate in Japan. In the 2040 s , by reducing the town’s energy demand of approximately 20,000 MWh through Energy Conservation Strategy, we will expand Production of Local for Local Consumption, and convert the renewable energy now consumed out-of-town for local consumption. This means Shimokawa Town not only reaches net zero emissions in the 2040s, but is also expected to act as a countermeasure for disasters. Shimokawa’s final goal is to create a PPS/retail business funded locally, produced locally, and consumed locally, and is currently under review.</p>
<input type="checkbox"/> 7.3. By 2030, double the global rate of improvement in energy efficiency.	<p>Target(3): Towards a Happy and Safe Society through Healthy/energy-Conserving Housing Time frame: 2030 Context for the ambition(s): To save energy usage and money(household and medical), we will realize mainstreaming health/passive houses, targeting to renovate 15 housings per year in 2023 compared to 13 in 2019. Including the promotion of disaster management as well as constructing an inclusive community caring system, we aim to be a town “where everyone can keep challenging and continue to live safely and happily through connections and support”.</p>

1.2. Other ambitions in support of SDG7 by 2030 and net-zero emissions by 2050. [Please describe below e.g., coal phase out or reforming fossil fuel subsidies etc.]

<p>Target(4): Achieving “ Shimokawa Vision 2030”, Goal6 “ A town that serves as an example for the rest of the world(decarbonized society and contribution on SDGs)” Time frame:2030 Context for the ambition(s): The Shimokawa Vision 2030, formulated in 2018 as a springboard for the Sixth Comprehensive Plan (its highest-level municipal plan to be formulated in fiscal 2018), is rooted in the town and rooted in the identity of the region. This is set as the goal to achieve in Shimokawa town until 2030 and other targets above hang from this goal in tree structure. At the same time, it encompasses international goals such as the basic SDG principle of inclusion (with “no one is left behind”) and the idea of a “decarbonized society” to combat climate change as set forth in the Paris Agreement. Goal6 emphasizes the importance of taking concrete action on these as well as target 7.a. “By building on past successes and taking them to the next level, Shimokawa contributes to the creation of a decarbonized society (as outlined in the Paris Agreement) and the achievement of the global Sustainable Development Goals”.</p>
<p>Target(5): Shimokawa Renewable Energy Roadmap</p>

Time frame:2040

Context for the ambition(s):

In 2018, Shimokawa Town formulated Shimokawa SDGs “Shimokawa Vision 2030”, and to achieve Goal 3 “A town that makes sustainable use of, and circulates its resources, including people, nature and finance” and Goal 6” A town that serves as an example for the rest of the world (decarbonized society and contribution on SDGs)”, “Shimokawa Renewable Energy Roadmap” was formulated to put into action. While Target 4 sets the goal, target 5 is the roadmap from which the above targets stem. We will promote “Energy Conservation Strategy” and target 7.3 by reducing energy demand at household level, starting with LED lighting and high efficiency air conditioning shift. We will further proceed in consumer level goal setting through discussions with residents.

This roadmap also states

- sustainable use of local resources, especially the forest and cyclical forest management system inherited from our ancestors.
- promotion of the Emergency Strategy in partnership with the private sector.
- to adjust to technological innovation, and social circumstances etc., follow-up and review is planned for “introduction policy” and "roadmap", and when necessary, will reconsider the roadmap.

SECTION 2: ACTIONS TO ACHIEVE THE AMBITION

2.1. Please add at least one key action for each of the elaborated ambition(s) from section 1. *[Please add rows as needed].*

<p><i>Description of action (please specify for which ambition from Section 1)</i> Mainstreaming Health/Passive Houses Project To save energy usage and money(household and medical),this project will mainstream housing by supporting residents through regulations and repairing public housing for better energy performance Section1: Target(3)</p>	<p><i>Start and end date</i> Start 2019 End 2023</p>
<p><i>Description of action (please specify for which ambition from Section 1)</i> Woody Biomass Community Heating System Areal Expansion Project Promote heating efficient operation of existing areal heating systems through energy-conserving renovations, etc., and expand the use of renewable energy throughout the town. Section1: Target(1)</p>	<p><i>Start and end date</i> Start 2019 End 2023</p>
<p><i>Description of action (please specify for which ambition from Section 1)</i> Ichinohashi Bio Village’s Decarbonization Community Model Project This project advances resident wellness and the eco-friendly Circular Economy of “Ichinohashi” village by utilizing renewable energy for the decarbonized community and through demonstrating resident-led community management. Section1: Target(4)</p>	<p><i>Start and end date</i> Start 2019 End 2023</p>
<p><i>Description of action (please specify for which ambition from Section 1)</i> CO2 survey and eco-action point Project In addition to setting quantitative measures on CO2 emission and absorption, visualizing and granting economic incentives on household CO2 reduction for residents to better understand and commit is also essential. Residents will get eco points from community currency systems through their commitment. Section1: Target(2)</p>	<p><i>Start and end date</i> Start 2019 End 2023</p>
<p><i>Description of action (please specify for which ambition from Section 1)</i> Energy Partnership / Agreement with Private Sectors Based on the lessons learned from the blackout on September 6, 2018, in order to promise a safe and secure life for the residents regarding energy, we aim to convert our already achieved 100% amount of our energy demand for out-of-town needs to consume locally to realize Local for Local Consumption and Production of renewable energy. With the ultimate goal of conversion, we advance emergency measures with partnership from private sectors to prevent disaster. In addition, we will constantly collect information on social conditions, technological innovation, etc., follow-up and review on Shimokawa Renewable Energy Roadmap’s introduction policy and roadmap, and reconsider the roadmap if necessary.</p>	<p><i>Start and end date</i> Start 2019 End 2040</p>

Section1: Target(5)

SECTION 3: OUTCOMES

3.1. Please add at least one measurable and time-based outcome for **each** of the actions from section 2. *[Please add rows as needed].*

<p>Outcome Number of renovated housing(high thermal insulation etc...)[provisional] Time frame:2019:13/year→2023:15/year Actions from Section2: Mainstreaming Health/Passive Houses Project/ CO2 survey and eco-action point Project</p>	<p>Date 2023</p>
<p>Outcome Number of residents that feel comfortable living in Shimokawa. [provisional] Time frame:2017:73.9%→2030:85%以上[provisional] Actions from Section2: Mainstreaming Health/Passive Houses Project /CO2 survey and eco-action point Project</p>	<p>Date 2030</p>
<p>Outcome Thermal energy self-sufficiency rate [provisional] Time frame: 2019:56%→2023:58%[provisional]→2030:60%[provisional] Actions from Section2: Woody Biomass Community Heating System Areal Expansion Project / Ichinohashi Bio Village's Decarbonization Community Model Project</p>	<p>Date 2030</p>
<p>Outcome energy supply for out-of-town in comparison to self-sufficiency rate [provisional] Time frame: 2019: 96%→2030:104% Actions from Section2: Energy Partnership / Agreement with Private Sectors /Woody Biomass Community Heating System Areal Expansion Project / Ichinohashi Bio Village's Decarbonization Community Model Project</p>	<p>Date 2030</p>
<p>Outcome CO2 emissions [provisional] Time frame: 2019:44,537t-CO2→2023: 43,600t-CO2[provisional]→2030: maintain rate[provisional] Actions from Section2: CO2 survey and eco-action point Project/ Woody Biomass Community Heating System Areal Expansion Project / Ichinohashi Bio Village's Decarbonization Community Model Project / Energy Partnership / Agreement with Private Sectors/</p>	<p>Date 2023</p>
<p>Outcome CO2 absorption [provisional] Time frame: 2019:101,052t-CO2→2023: 103,100t-CO2[provisional]→2030 : maintain rate[provisional] Actions from Section2: CO2 survey and eco-action point Project/ Woody Biomass Community Heating System Areal Expansion Project / Ichinohashi Bio Village's Decarbonization Community Model Project / Energy Partnership / Agreement with Private Sectors</p>	<p>Date 2023</p>

SECTION 4: REQUIRED RESOURCES AND SUPPORT

4.1. Please specify required finance and investments for **each** of the actions in section 2.

Shimokawa Town specifies project costs in a four year span, reviewing the comprehensive plan: which is the highest level plan of the town, every year toward 2030. We will keep forming cooperative relationships with various stakeholders for human resources, financial, and technological assistance etc. that we lack due to being a small-scaled municipality to aim higher for the achievement of the global goals. Due to the declining birthrate and aging population, there is a shortage of corporate leaders, so it is necessary to maintain and develop economic activities as well as reducing CO2 emission. Therefore, we plan to balance CO2 emissions after 2023, but will reduce emissions in the future through technological innovation to convert to Local for Local Consumption and Production for Renewable Energy.

Mainstreaming Health/Passive Houses Project (2019-2023)\$1,893,267
 Woody Biomass Community Heating System Areal Expansion Project (2019-2023) \$729,848
 Ichinohashi Bio Village' s Decarbonization Community Model Project (2019-2023) \$563,336
 CO2 survey and eco-action point Project/ (2019-2023)\$ 99,329
 Energy Partnership / Agreement with Private Sectors(2019-2040)TBD

4.2. [For countries only] In case support is required for the actions in section 2, please select from below and describe the required support and specify for which action.

[Examples of support for Member States could include: Access to low-cost affordable debt through strategic de-risking instruments, capacity building in data collection; development of integrated energy plans and energy transition pathways; technical assistance, etc.]

<input type="checkbox"/> Financing	Description
<input type="checkbox"/> In-Kind contribution	Description
<input type="checkbox"/> Technical Support	Description
<input type="checkbox"/> Other/Please specify	Description

SECTION 5: IMPACT

5.1. Countries planned for implementation including number of people potentially impacted.

Despite being a small town with approx. 3,200 residents, Shimokawa Town has been selected as the Prime Minister's Award at the very 1st Japan SDGs Awards from the energy context(Ichinohashi Bio Village and Woody Biomass), and has attracted attention worldwide ever since. In HLPF2018, Shimokawa conducted the very first VLR with IGES, also sharing our famous case to the world. We have kept sharing our pilot cases in many opportunities, recently we introduced our effort at the VLR Lab of HLPF2021, indirectly affecting every man on earth. Before the pandemic of COVID-19, there were about 1,000 inspectors from outside the town, and about 40 inspectors through JICA's training, contributing to the achievement of SDGs7 in developing countries.

5.2. Alignment with the 2030 Agenda for Sustainable Development – Please describe how **each** of the actions from section 2 impact advancing the SDGs by 2030.

[up to 500 words, please upload supporting strategy documents as needed]

Shimokawa Town has been working on city planning centering the forests for more than half a century. Shimokawa has been aligning with the SDGs through cascade use of wood(biomass etc...), and has been stating to "develop a sustainable community balancing society, economy and environment" in 2001, and "aims to become a sustainable society" in the preamble of Shimokawa Self-Government Basics in 2007. On the foundation of our strength in forestry and biomass, we aim to realize "Shimokawa Vision 2030" from the three dimensions as well as "Shimokawa Renewable Energy Roadmap". Especially in Goal3 of Shimokawa Vision 2030,"A town that makes sustainable use of, and circulates its resources, including people, nature and finance", Shimokawa aims to cyclically and sustainably uses its resources including people, natural resources (including its forests and water), financial and other assets; fosters ongoing growth in its forestry and other industries; and practices local production for local consumption in food, lumber, and energy for the purpose of fostering healthy independence and autonomy. Through projects for the contribution in achieving SDGs7, we will also contribute in CO2 reduction, the increase of employment due to circular economy (SDGs8,9,13,15), disaster preparation through local for local consumption and production (SDGs11) based on the experience of blackout in 2018.

Mainstreaming Health/Passive Houses Project

Impacted targets: 3.d, 7.2, 7.3, 8.3, 8.9, 11.1, 11.6, 11.c, 13.1

Supports health problems like heat shocks of the elderly through regulations.

Woody Biomass Community Heating System Areal Expansion Project

Impacted targets: 7.1、7.2、7.3、7.a、7.b、8.9、9.5、11.6、11.b、13.1、13.2

By expanding the use of renewable energy throughout the town, we will build a system for disaster countermeasures and climate change through our policy.

Ichinohashi Bio Village’s Decarbonization Community Model Project

Impacted targets: 7.1、7.2、7.3、7.a、7.b、8.9、9.5、11.3、11.6、13.1、13.b

Consider producing other specialties utilizing biomass heat besides shiitake mushrooms、being a model case on SDGs.

CO2 survey and eco-action point Project

Impacted targets: 7.2、7.3、7.b、9.4、11.6、13.3、13.b

Visualizing and granting economic incentives on household CO2 reduction for raising resident’s awareness to better understand and commit to the achievement of the global goals.

Energy Partnership / Agreement with Private Sectors

Impacted targets: 7.1、7.2、7.3、8.9、9.3、9.4、9.5、11.3、11.5、11.6、11.b、13.1、13.3

As the ultimate goal of conversion, we advance emergency measures with partnership from private sectors to prevent disaster.

5.3. Alignment with Paris Agreement and net-zero by 2050 - Please describe how each of the actions from section 2 align with the Paris Agreement and national NDCs (if applicable) and support the net-zero emissions by 2050. [up to 500 words, please upload supporting strategy documents as needed]

Based on the basic policy of the roadmap formulated in discussion with the residents, we concentrate on "Energy Conservation Strategy" which starts from reducing the current energy demand of approx. 20,000 MWh. Based on the "Shimokawa Renewable Energy Roadmap", we will go hand in hand with the Japanese government on the alignment of the Paris Agreement and the Net Zero by 2050, building on our strengths. Actions require shifting to highly insulated housing and PHVs and EVs, or other transportation to reduce CO2. In addition, we will visualize the efforts of consumers, such as recycling kitchen waste. Especially in the household sector, which has the highest proportion of energy demand, we plan to promote energy conservation measures in cooperation with residents. For example, a women's group has a zero garbage project, and a recycle shop run by the elderly is both trying to reduce the amount of garbage. Also, considering renewable energy and disasters, an NPO lends solar panels and portable batteries, and holds events to experience power generating through bicycles for environmental education, which has led to awareness raising.

Mainstreaming Health/Passive Houses Project

Mainstream housing contributes to decarbonization with high airtightness and high heat insulation.

Woody Biomass Community Heating System Areal Expansion Project

Promotion on heating efficient operation of existing areal heating systems through energy-conserving renovations, etc., and expand the use of renewable energy throughout the town for net zero by 2050.

Ichinohashi Bio Village’s Decarbonization Community Model Project

Advancing net zero by 2050 based on Circular Economy by utilizing renewable energy for the decarbonized community, and inviting companies in the model village that align with Shimokawa’s goals.

CO2 survey and eco-action point Project

Visualizing and granting economic incentives on household CO2 reduction for raising resident’s awareness to better understand and commit to decarbonization.

Energy Partnership / Agreement with Private Sectors

We will constantly collect information on social conditions, technological innovation, etc.to meet the Paris Agreement and Net Zero by 2050, and reconsider "Shimokawa Renewable Energy Roadmap" if necessary.

SECTION 6: MONITORING AND REPORTING

6.1. Please describe how you intend to track the progress of the proposed outcomes in section 3. Please also describe if you intend to use other existing reporting frameworks to track progress on the proposed outcomes.

- Follow-up and Review process at Shimokawa Town SDG Board of Trustees
- Follow-up and Review of “SDGsFutureCityPlan” held by Cabinet Office, government of Japan
- follow-up and review for “Shimokawa Renewable Energy Roadmap” , and when necessary, will reconsider the contents
- conducting reports (example :VLRs) and attending forums to share our pilot cases in partnership with IGES and ICLEI.

SECTION 7: GUIDING PRINCIPLES CHECKLIST

Please use the checklist below to validate that the proposed Energy Compact is aligned with the guiding principles.

I. Stepping up ambition and accelerating action - Increase contribution of and accelerate the implementation of the SDG7 targets in support of the 2030 Agenda for Sustainable Development for Paris Agreement

I.1. Does the Energy Compact strengthen and/or add a target, commitment, policy, action related to SDG7 and its linkages to the other SDGs that results in a higher cumulative impact compared to existing frameworks?

Yes No

I.2. Does the Energy Compact increase the geographical and/or sectoral coverage of SDG7 related efforts? Yes No

I.3. Does the Energy Compact consider inclusion of key priority issues towards achieving SDG7 by 2030 and the net-zero emission goal of the Paris Agreement by 2050 - as defied by latest global analysis and data including the outcome of the Technical Working Groups? Yes No

II. Alignment with the 2030 agenda on Sustainable Development Goals – Ensure coherence and alignment with SDG implementation plans and strategies by 2030 as well as national development plans and priorities.

II.1. Has the Energy Compact considered enabling actions of SDG7 to reach the other sustainable development goals by 2030? Yes No

II.2. Does the Energy Compact align with national, sectoral, and/or sub-national sustainable development strategies/plans, including SDG implementation plans/roadmaps? Yes No

II.3. Has the Energy Compact considered a timeframe in line with the Decade of Action? Yes No

III. Alignment with Paris Agreement and net-zero by 2050 - Ensure coherence and alignment with the Nationally Determined Contributions, long term net zero emission strategies.

III.1. Has the Energy Compact considered a timeframe in line with the net-zero goal of the Paris Agreement by 2050? Yes No

III.2. Has the Energy Compact considered energy-related targets and information in the updated/enhanced NDCs? Yes No

III.3. Has the Energy Compact considered alignment with reaching the net-zero emissions goal set by many countries by 2050? Yes No

IV. Leaving no one behind, strengthening inclusion, interlinkages, and synergies - Enabling the achievement of SDGs and just transition by reflecting interlinkages with other SDGs.

IV.1. Does the Energy Compact include socio-economic impacts of measures being considered? Yes No

IV.2. Does the Energy Compact identify steps towards an inclusive, just energy transition? Yes No

IV.3. Does the Energy Compact consider measures that address the needs of the most vulnerable groups (e.g. those impacted the most by energy transitions, lack of energy access)? Yes No

V. Feasibility and Robustness - Commitments and measures are technically sound, feasible, and verifiable based a set of objectives with specific performance indicators, baselines, targets and data sources as needed.

V.1. Is the information included in the Energy Compact based on updated quality data and sectoral assessments, with clear and transparent methodologies related to the proposed measures? Yes No

V.2. Has the Energy Compact considered inclusion of a set of SMART (specific, measurable, achievable, resource-based and time based) objectives? Yes No

V.3. Has the Energy Compact considered issues related to means of implementation to ensure feasibility of measures proposed (e.g. cost and financing strategy, technical assistant needs and partnerships, policy and regulatory gaps, data and technology)? Yes No

SECTION 8: ENERGY COMPACT GENERAL INFORMATION

8.1. Title/name of the Energy Compact

A sustainable town that circulates resources, people, nature and finance

8.2. Lead entity name (for joint Energy Compacts please list all parties and include, in parenthesis, its entity type, using entity type from below)

Policy Promotion Department, Shimokawa Town Hall

8.3. Lead entity type

Government

Local/Regional Government

Multilateral body /Intergovernmental Organization

Non-Governmental Organization (NGO)

Civil Society organization/Youth

Academic Institution /Scientific Community

Private Sector

Philanthropic Organization

Other relevant actor

8.4. Contact Information

seisaku@town.shimokawa.hokkaido.jp

8.5. Please select the geographical coverage of the Energy Compact

Africa Asia and Pacific Europe Latin America and Caribbean North America West Asia Global

8.6. Please select the Energy Compact thematic focus area(s)

Energy Access Energy Transition Enabling SDGs through inclusive just Energy Transitions Innovation, Technology and Data Finance and Investment.

SECTION 9: ADDITIONAL INFORMATION (IF REQUIRED)

Please provide additional website link(s) on your Energy Compact, which may contain relevant key documents, photos, short video clips etc.

IGES, 【VLR】 Shimokawa Town SDGs Report

<https://www.iges.or.jp/jp/pub/shimokawa-town-sustainable-development-goals/en>

IGES, Shimokawa Method for VLR

<https://www.iges.or.jp/jp/pub/shimokawa-method-vlr/en>

Shimokawa Town, Hokkaido: Establishing an Energy-Sustainable Small Town Management Model with Local Forest Resources (Part 1) :

https://www.japanfs.org/en/news/archives/news_id035217.html

Sustainable Forest Future Community "Ichinohashi" Bio-Village of Shimokawa town :

<https://www.town.shimokawa.hokkaido.jp/section/2018/05/sustainable-forest-future-community-ichinohashi-bio-village-of-shimokawa-town.html>

【Youtube Video】 Forest development that creates the future: What I learned from Shimokawa Town: <https://www.youtube.com/watch?v= ODNY-bmkVY>

Video Presentation on SDGs7 for “12th International Conference on Energy and Climate Change/ 6th Green Energy Investments Forum” (9 – 11 October 2019), KEPA

https://www.uoa.gr/fileadmin/user_upload/PDF-files/ekdilwseis/Ekdilwseis/2019/2509_Scientific_Conference_2019_programma.pdf

Renewable Energy Roadmap(Japanese)

https://www.town.shimokawa.hokkaido.jp/section/.assets/roadmap_gaiyou.pdf

