This section has rules that have legal effect.

REG — Renewable Electricity Generation

The purpose of the Renewable Electricity Generation chapter is to set objectives, policies and rules for renewable electricity generation in Lower Hutt.

Renewable electricity generation can have both positive and adverse environmental effects.

Positive effects of renewable electricity generation include a reduction in impacts on the climate (through a reduction in energy use from sources that emit carbon to the atmosphere) and an increase in resilience through an increase in energy generated locally. Small-scale and community-scale renewable electricity generation can also have a financial benefit for individuals and communities by reducing the amount of electricity that needs to be purchased from electricity providers.

Potential adverse effects from renewable electricity generation can include effects on amenity, landscape, ecology, cultural and historic heritage values. These effects can be a result of a renewable electricity generation activity itself or as part of the construction, maintenance or repair of structures.

Renewable electricity generation activities which are provided for in this chapter are excluded from most rules in other chapters of the District Plan. However, objectives and policies in other chapters may be relevant. Further details on which other rules of other chapters apply to renewable electricity generation activities are given at the beginning of the rules section of this chapter.

Objectives

REG-O1	Benefits of renewable electricity generation
The local, regional and national benefits from the use and development of renewable electricity generation are recognised.	
REG-O2	**Providing for renewable electricity generation**
Renewable electricity generation activities, and the identification and assessment of potential renewable electricity sources are able to establish and operate in appropriate locations within Lower Hutt while: 1. Managing adverse effects on the environment, and 2. Recognising their practical constraints including those arising from their functional needs, operational needs and technical requirements.	

Policies

REG-P1	Benefits of renewable electricity generation
Recognise the benefits of renewable electricity generation, including: 1. Maintenance and increase of electricity supply security, and diversifying the type and location of electricity generation, 2. Reduction in dependence on imported energy sources and use of finite resources, 3. Reduction in greenhouse gas emissions, 4. The reversibility of the adverse effects of some renewable electricity generation technologies, 5. Supporting the local and national transition to renewable electricity, and 6. The contribution to the transition of the city to be carbon neutral by 2050.	
REG-P2	**Consideration of the adverse effects of renewable electricity generation activities**
When considering the adverse effects of renewable electricity generation activities on the environment, have regard to the following: 1. The scale, intensity, duration and frequency of the activity's effects, 2. The size of any structures associated with the activity, 3. The design and site layout of the activity and its ability to internalise effects, including any blade or shadow flicker, 4. The degree of separation from activities sensitive to noise, 5. For large-scale renewable electricity generation activities, the degree of separation from urban environments, 6. The sufficiency of roading and infrastructure capacity to accommodate the activity, 7. Recognising that co-location of renewable electricity generation activities with existing buildings or structures provides opportunities for avoiding or minimising adverse effects,	

8. Anticipated outcomes for the receiving environment and the degree to which past modifications have compromised the achievement of those outcomes, and
9. Where located in a specified overlay, the degree to which the features or the identified values of the overlay, site or area of significance will be protected from adverse effects and preserved, including consideration of whether adverse effects on these values and features are avoided due to being:
    a. No more than minor or transitory, or
    b. Remedied, mitigated or offset.

REG-P3	Operating, maintaining and repairing renewable electricity generation activities

1. Enable the maintenance and repair of renewable electricity generation activities.
2. Enable the operation of renewable electricity generation activities while avoiding, remedying or mitigating adverse effects, to the extent practicable.

REG-P4	Renewable electricity generation investigation activities

Provide for renewable electricity generation investigation activities, while:
1. Avoiding non-transitory adverse effects on the identified values of:
    a. Outstanding Coastal Natural Character Areas,
    b. Outstanding Natural Features, and
    c. Outstanding Natural Landscapes where located in the Coastal Environment.
2. Avoiding significant non-transitory adverse effects on the features and identified values of:
    a. High and Very High Coastal Natural Character Areas,
    b. Outstanding Natural Landscapes, where located outside the Coastal Environment,
    c. Heritage areas or sites containing a heritage building or heritage structure, and
    d. Sites and areas of significance to Māori.
3. Avoiding effects of increased natural hazard risk where located in high hazard areas.
4. Avoiding, remedying or mitigating other adverse effects, to the extent practicable, including by:
    a. Limiting the size of any structures required for the activities,
    b. Restricting the duration of the activities, and
    c. Restoring the site to pre-works conditions after removal of the activities.

REG-P5	Upgrading and developing renewable electricity generation activities

Provide for new or upgraded renewable electricity generation activities, while:
1. For community-scale renewable electricity generation activities:
    a. Minimising adverse effects on landscape, visual and amenity values, and
    b. Minimising adverse noise effects on activities sensitive to noise.
2. For large-scale renewable electricity generation activities:
    a. Minimising adverse effects on landscape, visual and amenity values,
    b. Avoiding adverse effects on urban environments, and
    c. Avoiding adverse noise effects on activities sensitive to noise.
3. For any other adverse effects on the environment, avoiding, remedying or mitigating adverse effects, including cumulative effects, to the extent practicable, including:
    a. Effects on landscape, visual and amenity values,
    b. Noise effects on activities sensitive to noise,
    c. Effects on the operation and capacity of infrastructure,
    d. Effects on natural hazard risk, and
    e. Effects on indigenous biodiversity and the intrinsic values of ecosystems.

This policy is to be read in conjunction with policies REG-P6 to REG-P10.

REG-P6	Upgrading and developing renewable electricity generation activities in natural hazard overlays

Provide for new or upgraded renewable electricity generation activities in natural hazard overlays where:
1. There is a functional need or an operational need for the activity to be in that location,
2. Related buildings, structures or earthworks are of a scale and design that do not significantly increase natural hazard risk in High Flood Hazard Overlays and Medium Flood Hazard Overlays, and
3. Increases in natural hazard risk in identified High Natural Hazard Overlays are avoided.

REG-P7	Upgrading and developing renewable electricity generation activities in coastal margins and riparian margins

Provide for new or upgraded renewable electricity generation activities in coastal margins and riparian margins where:
1. There is a functional need or an operational need for the activity to be in that location, and
2. Adverse effects on coastal margins and riparian margins are minimised.

REG-P8	Upgrading and developing renewable electricity generation activities, in coastal natural character areas

Provide for new or upgraded renewable electricity generation activities in High and Very Coastal Natural Character

Areas and Outstanding Coastal Natural Character Areas where:
1. There is a functional need or an operational need for the activity to be in that location and there are no practicable alternative locations or solutions,
2. Adverse effects on the identified values of Outstanding Coastal Natural Character Areas are avoided,
3. Significant adverse effects on the identified values of High and Very High Coastal Natural Character Areas are avoided,
4. Other adverse effects on coastal natural character are avoided, remedied or mitigated.

REG-P9	Upgrading and developing renewable electricity generation activities, in Outstanding Natural Features and Outstanding Natural Landscapes

Provide for new or upgraded renewable electricity generation activities in Outstanding Natural Features and Outstanding Natural Landscapes where:
1. There is a functional need or an operational need for the activity to be in that location and there are no practicable alternative locations or solutions,
2. Adverse effects on the identified values of Outstanding Natural Features are avoided,
3. Adverse effects on the identified values of Outstanding Natural Landscapes, where located within the Coastal Environment are avoided,
4. Significant adverse effects on the identified values of Outstanding Natural Landscapes, where located outside the Coastal Environment are avoided, and
5. Other adverse effects on Outstanding Natural Landscapes are avoided, remedied or mitigated.

REG-P10	Upgrading and developing renewable electricity generation activities, in sites and areas of significance to Māori, and heritage areas and sites containing heritage buildings or heritage structures

Provide for new or upgraded renewable electricity generation activities in sites and areas of significance to Māori, and heritage areas and sites containing heritage buildings or heritage structures where:
1. There is a functional need or an operational need for the activity to be in that location and there are no practicable alternative locations or solutions,
2. Significant adverse effects on the particular heritage and/or cultural values of the site, area, item and/or feature are avoided, and
3. Other adverse effects on the particular heritage and/or cultural values of the site, area, item and/or feature are avoided, remedied or mitigated.

Rules

Rules of this chapter
The rules of this chapter address the provision for renewable electricity generation activities, including:
- Maintenance and repair of renewable electricity generation activities (REG-R1),
- Renewable electricity generation investigation activities (REG-R2),
- Upgrading, developing and operating small-scale renewable electricity generation activities (REG-R3 to REG-R4),
- Upgrading, developing and operating community-scale renewable electricity generation activities (REG-R5 to REG-R6), and
- Upgrading, developing and operating large-scale renewable electricity generation activities (REG-R7).

Application of rules to buildings and structures
For structures, the rules of this chapter only apply to the renewable electricity generating structure (such as the wind turbine, solar panel, and supporting structures). They do not apply to other buildings that wind turbines and solar panels may be mounted on, and do not apply to ancillary buildings (such as maintenance and service buildings).

District-wide chapters
Rules in other chapters in Part 2 — District-Wide Matters also apply to activities associated with renewable electricity generation, except for the rules in the following chapters:
a. NH — Natural Hazards
b. CE — Coastal Environment
c. NATC — Natural Character
d. NFL — Natural Features and Landscapes
e. SASM — Sites and Area of Significance to Māori

Renewable Electricity Generation and Infrastructure
A Renewable Electricity Generation structure may meet the definition of Infrastructure. Where this is the case, the rules of this chapter apply, and not the rules of INF — Infrastructure.

REG-R1	Maintenance and repair of renewable electricity generation activities
All zones	1. **Activity status:** Permitted
REG-R2	**Renewable electricity generation investigation activities**

All zones	1. **Activity status:** Permitted Where: a. Compliance is achieved with: i. REG-S1: Structures for renewable electricity generation investigation activities, and ii. REG-S2: Duration of renewable electricity generation investigation activities, b. All equipment and structures are removed at the end of the renewable electricity generation investigation activities, and c. The site or area is restored to pre-works condition after removal of the renewable electricity generation investigation activities.
All zones	2. **Activity status:** Restricted discretionary Where: a. Compliance is not achieved with REG-R2.1, and b. Not located within: i. A High and Very High Coastal Natural Character Area, or ii. An Outstanding Coastal Natural Character Area, or iii. An Outstanding Natural Feature or Outstanding Natural Landscape. **Matters of discretion are restricted to:** 1. Effects on landscape, visual and amenity values. 2. Noise effects, including on activities sensitive to noise. 3. Effects from developing and decommissioning the activity and rehabilitating the site, including dust, traffic and amenity effects. 4. Health and safety effects. 5. Any adverse cumulative effects. 6. The extent to which the duration of the activity and site rehabilitation will be effective in avoiding or minimising adverse effects. 7. The matters in REG-P2: Consideration of adverse effects of renewable electricity generation activities. 8. Any positive effects that can only be achieved through non-compliance with REG-R2.1, including with reference to the benefits identified in REG-P1: Benefits of renewable electricity generation. **Notification:** Public notification is precluded for applications under this rule.
All zones	3. **Activity status:** Discretionary Where: a. Compliance is not achieved with REG-R2.1 and b. Located within: i. A High and Very High Coastal Natural Character Area, or ii. An Outstanding Natural Landscape, where located outside the Coastal Environment.
All zones	4. **Activity status:** Non-complying Where: a. Compliance is not achieved with REG-R2.1, and b. Located within: i. An Outstanding Coastal Natural Character Area, ii. An Outstanding Natural Landscape, where located in the Coastal Environment, or iii. An Outstanding Natural Feature.
REG-R3	**Upgrading, developing and operating small-scale renewable electricity generation activities — Roof-mounted structures**
All zones	1. **Activity status:** Permitted Where: a. Compliance is achieved with: i. REG-S3: Roof-mounted solar panels, and ii. REG-S4: Roof-mounted wind turbines, and b. The activity does not include: i. More than one wind turbine per site for sites comprising 20ha or less, or

	ii. More than three wind turbines per site for sites comprising more than 20ha.
All zones	2. **Activity status:** Restricted discretionary Where: a. Compliance is not achieved with REG-R3.1. **Matters of discretion are restricted to:** 1. Effects on landscape, visual and amenity values. 2. Noise effects, including on activities sensitive to noise. 3. Health and safety effects. 4. Any adverse cumulative effects. 5. The matters in REG-P2: Consideration of the adverse effects of renewable electricity generation activities. 6. Any positive effects that can only be achieved through non-compliance with REG-R3.1, including with reference to the benefits identified in REG-P1: Benefits of renewable electricity generation. **Notification:** Public notification is precluded for applications under this rule.
REG-R4	**Upgrading, developing and operating small-scale renewable electricity generation activities — Freestanding structures**
All zones	1. **Activity status:** Permitted Where: a. Compliance is achieved with: i. The standards of the Noise chapter that apply to the underlying zone, ii. REG-S5: Freestanding wind turbines, iii. REG-S6: Freestanding solar panels, and iv. For any structures which are not freestanding wind turbines or solar panels, compliance is achieved with the building and structure standards applying to the underlying zone. b. The activity does not include: i. More than one wind turbine per site for sites comprising 20ha or less, or ii. More than three wind turbines per site for sites comprising more than 20ha. c. Not located in: i. A High and Very High Coastal Natural Character Area, ii. An Outstanding Coastal Natural Character Area, iii. An Outstanding Natural Feature, iv. An Outstanding Natural Landscape, v. A heritage area or a site containing a heritage building or heritage structure,  vi. Category 1 site or area of significance to Māori, and  vii. A high hazard area.
All zones	2. **Activity status:** Restricted discretionary Where: a. Compliance is not achieved with REG-R4.1a or REG-R4.1b. **Matters of discretion are restricted to:** 1. Effects on landscape, visual and amenity values. 2. Noise effects, including on activities sensitive to noise. 3. Health and safety effects. 4. The matters of discretion in any standards not met. 5. Any adverse cumulative effects. 6. The matters in REG-P2: Consideration of the adverse effects of renewable electricity generation activities. 7. Any positive effects that can only be achieved through non-compliance with REG-R4.1, including with reference to the benefits identified in REG-P1: Benefits of renewable electricity generation. **Notification:** Public notification is precluded for applications under this rule.
All zones	3. **Activity status:** Restricted discretionary

	Where: a. Located in: i. A heritage area or a site containing a heritage building or heritage structure, or ii. A Category 1 site or area of significance to Māori. **Matters of discretion are restricted to:** 1. Effects on the particular heritage and/or cultural values of that site, area, item and/or feature. 2. The matters in REG-P2: Consideration of the adverse effects of renewable electricity generation activities. 3. Any positive effects that can only be achieved through the activity being in this location, including with reference to the benefits identified in REG-P1: Benefits of renewable electricity generation. **Notification:** Public notification is precluded for applications under this rule.
All zones	4. **Activity status:** Restricted discretionary Where: a. Located in a high hazard area. **Matters of discretion are restricted to:** 1. Any change to natural hazard risk as a result of the activity being undertaken. 2. The matters in REG-P2: Consideration of the adverse effects of renewable electricity generation activities 3. Any positive effects that can only be achieved through the activity being in this location, including with reference to the benefits identified in REG-P1: Benefits of renewable electricity generation. **Notification:** Public notification is precluded for applications under this rule.
All zones	5. **Activity status:** Restricted discretionary Where: a. Located within a High or Very High Coastal Natural Character Area: i. Compliance is achieved with REG-R4.1a and REG-R4.1b. b. Located within an Outstanding Natural Landscape: i. Located outside the Coastal Environment, and ii. Compliance is achieved with REG-R4.1a and REG-R4.1b. **Matters of discretion are restricted to:** 1. Effects on the features and values of the location which are identified and described in a SCHED4 and SCHED5. 2. The matters in REG-P2: Consideration of the adverse effects of renewable electricity generation activities. 3. Any positive effects that can only be achieved through the activity being in this location, including with reference to the benefits identified in REG-P1: Benefits of renewable electricity generation.
All zones	6. **Activity status:** Discretionary Where: a. Located within a High or Very High Coastal Natural Character Area: i. Compliance is not achieved with REG-R4.1a and REG-R4.1b. b. Located within an Outstanding Natural Landscape: i. Located outside the Coastal Environment, and ii. Compliance is not achieved with REG-R4.1a and REG-R4.b.
All zones	7. **Activity status:** Non-complying Where: a. Located within: i. An Outstanding Coastal Natural Character Area, or ii. An Outstanding Natural Feature, or iii. An Outstanding Natural Landscape and within the Coastal Environment.
REG-R5	**Upgrading, developing and operating community-scale renewable electricity**

		generation activities — roof-mounted structures
	All zones	1. **Activity status:** Permitted Where: a. Compliance is achieved with: i. REG-S3: Roof-mounted solar panels, and ii. REG-S4: Roof-mounted wind turbines. b. For any proposal involving wind generation, compliance is achieved with NZS 6808:2010 Acoustics - Wind farm noise.
	All zones	2. **Activity status:** Restricted discretionary Where: a. Compliance is not achieved with REG-R5.1. **Matters of discretion are restricted to:** 1. Effects on landscape, visual and amenity values. 2. Noise effects, including on activities sensitive to noise. 3. Effects on the operation and capacity of infrastructure. 4. Health and safety effects. 5. Any adverse cumulative effects. 6. The matters in REG-P2: Consideration of the adverse effects of renewable electricity generation activities. 7. Any positive effects that can only be achieved through non-compliance with REG-R5.1, including with reference to the benefits identified in REG-P1: Benefits of renewable electricity generation.
REG-R6		**Community-scale renewable electricity generation activities not otherwise provided for**
	All zones	1. **Activity status:** Permitted Where: a. Compliance is achieved with: i. REG-S5: Freestanding wind turbines, ii. REG-S6: Freestanding solar panels, and iii. For any structures which are not freestanding wind turbines or solar panels, compliance is achieved with the building and structure standards applying to the underlying zone. b. For any proposal involving wind generation, compliance is achieved with NZS 6808:2010 - Wind farm noise. c. Not located in: i. A High and Very High Coastal Natural Character Area, ii. An Outstanding Coastal Natural Character Area, iii. An Outstanding Natural Feature, iv. An Outstanding Natural Landscape, v. A heritage area or a site containing a heritage building or heritage structure, vi. A site or area of significance to Māori, and vii. A high hazard area
	All zones	2. **Activity status:** Restricted discretionary Where: a. Compliance is not achieved with REG-R6.1a or REG-R6.1b. **Matters of discretion are restricted to:** 1. Effects on landscape, visual and amenity values. 2. Noise effects, including on activities sensitive to noise. 3. Effects on the operation and capacity of infrastructure. 4. Health and safety effects. 5. The matters of discretion in any standards not met. 6. Any adverse cumulative effects. 7. The matters in REG-P2: Consideration of the adverse effects of renewable electricity generation activities. 8. Any positive effects that can only be achieved through non-compliance with REG-R6.1, including with reference to the benefits identified in REG-P1: Benefits of renewable electricity generation.

All zones	3. **Activity status:** Restricted discretionary Where: a. Located in: i. A heritage area or a site containing a heritage building or heritage structure, or ii. A site or area of significance to Māori. **Matters of discretion are restricted to:** 1. Effects on the particular heritage and/or cultural values of that site, area, item and/or feature. 2. The matters in REG-P2: Consideration of the adverse effects of renewable electricity generation activities. 3. Any positive effects that can only be achieved through the activity being in this location, including with reference to the benefits identified in REG-P1: Benefits of renewable electricity generation.
All zones	4. **Activity status:** Restricted discretionary Where: a. Located in: i. A high natural hazard overlay. **Matters of discretion are restricted to:** 1. Any change to natural hazard risk as a result of the activity being undertaken. 2. The matters in REG-P2: Consideration of the adverse effects of renewable electricity generation activities. 3. Any positive effects that can only be achieved through the activity being in this location, including with reference to the benefits identified in REG-P1: Benefits of renewable electricity generation.
All zones	5. **Activity status:** Restricted discretionary Where: a. Located within a High or Very High Coastal Natural Character Area: i. Compliance is achieved with REG-R6.1a and REG-R6.1b. b. Located within an Outstanding Natural Landscape: i. Located outside the Coastal Environment, and ii. Compliance is achieved with REG-R6.1a and REG-R6.1b. **Matters of discretion are restricted to:** 1. Effects on the features and values of the location which are identified and described in SCHED4 and SCHED5. 2. The matters in REG-P2: Consideration of the adverse effects of renewable electricity generation activities. 3. Any positive effects that can only be achieved through the activity being in this location, including with reference to the benefits identified in REG-P1: Benefits of renewable electricity generation.
All zones	6. **Activity status:** Discretionary Where: a. Located within a High or Very High Coastal Natural Character Area, and i. Compliance is not achieved with REG-R6.1a and REG-R6.1b b. Located within an Outstanding Natural Landscape, and i. Located outside the Coastal Environment, and ii. Compliance is not achieved with REG-R6.1a and REG-R6.1b.
All zones	7. **Activity status:** Non-complying Where: a. Located within an Outstanding Coastal Natural Character Area, or b. Located within an Outstanding Natural Feature, or c. Located within an Outstanding Natural Landscape within the Coastal Environment.
REG-R7	**Upgrading, developing and operating large-scale renewable electricity generation activities**

General Rural Zone Rural Lifestyle Zone Natural Open Space Zone	1. **Activity status:** Discretionary Where: a. For any proposal involving wind generation, compliance is achieved with NZS 6808:2010 Acoustics – Wind farm noise. b. Not located in: i. A High and Very High Coastal Natural Character Area, or ii. An Outstanding Coastal Natural Character Area, or iii. An Outstanding Natural Feature, or iv. An Outstanding Natural Landscape, or v. A heritage area or a site containing a heritage building or heritage structure, or vi. A site or area of significance to Māori.
General Rural Zone Rural Lifestyle Zone Natural Open Space Zone	2. **Activity status:** Non-complying Where: a. Compliance is not achieved with REG-R7.1.
All other zones	3. **Activity status:** Non-complying

Standards

REG-S1	Structures for renewable electricity generation investigation activities

1. The maximum height of structures, when measured above ground level, does not exceed:
   a. 80m: in the General Rural Zone,
   b. 50m: in the Rural Lifestyle Zone or Natural Open Space Zone,
   c. 20m: in all other zones, and
   d. 20m: in High and Very High Coastal Natural Character Areas, Outstanding Coastal Natural Character Areas, Outstanding Natural Features and Outstanding Natural Landscapes.
2. Any structure complies with the height in relation to boundary standard for the zone in which it is located.
3. Any structure complies with the boundary setback standard for the zone in which it is located.

There are no matters of discretion if the standard is breached.

REG-S2	Duration of renewable electricity generation investigation activities

1. The duration of renewable electricity generation investigation activities does not exceed:
   a. 6 months: in Outstanding Natural Landscapes, Outstanding Natural Features, and High, Very High and Outstanding Coastal Natural Character Areas, and
   b. 5 years: in all other zones and overlays.

There are no matters of discretion if the standard is breached.

REG-S3	Roof-mounted solar panels

1. Any solar panel must not exceed:
   a. The building height standard for the underlying zone by more than 1.5m measured vertically, or
   b. The height in relation to boundary standard for the underlying zone.

There are no matters of discretion if the standard is breached.

REG-S4	Roof-mounted wind turbines

1. The wind turbine must not exceed:
   a. The building height standard of the underlying Zone by more than 3m measured vertically, and
   b. The height in relation to boundary standard for the underlying zone.

There are no matters of discretion if the standard is breached.

REG-S5	Freestanding wind turbines

1. The wind turbine must not exceed:
   a. The height in relation to boundary standard for the underlying zone,
   b. A maximum height of 20m above ground level (including the full vertical extent of the blades), and
   c. Either:
      i. A maximum rotor diameter of 5m, or
      ii. A maximum rotor area of $200m^2$.

2. The wind turbine must not be located within:
    a. 60m of a habitable building on an adjacent site,
    b. A coastal margin or riparian margin, and
    c. The High Flood Hazard Overlay or Medium Flood Hazard Overlay.

Matters of discretion if the standard is breached:

1. Effects on the natural character of the coastal margin or riparian margin.
2. Any change to natural hazard risk.

REG-S6	Freestanding solar panels

1. Any freestanding solar panel structure must not exceed:
    a. The height in relation to boundary standard for the underlying zone,
    b. The setback standards for the underlying zone, and
    c. A maximum height of 6m above ground level.

There are no matters of discretion if the standard is breached.