

**Mauritius 2050 Pathways Calculator**  
**(Version 1)**  
**Hydroelectric power**

Table 1 shows that the share of hydro power in the total electricity mix decreases over time in the LTES. This change reflects the topographical constraints of Mauritius in the development of medium-to-large hydro power stations. At the end of 2013, the total installed hydro capacity stood at 60.74 MW, and the effective capacity was 56.30 MW.<sup>1</sup> Among the most recent hydro power addition is 0.35 MW at Midlands Dam revealing the constrained hydro power capacity that exists.<sup>2</sup>

**Table 1: Electricity mix targets, 2010-2025.**

Fuel Source		Percentage of Total Electricity Generated			
Renewable		2010	2015	2020	2025
	Bagasse	16	13	14	17
	Hydro	4	3	3	2
	Waste-to-Energy	0	5	4	4
	Wind	0	2	6	8
	Solar PV	0	1	1	2
	Geothermal	0	0	0	2
<i>Sub-total</i>		<i>20</i>	<i>24</i>	<i>28</i>	<i>35</i>
Non-renewable					
	Fuel oil	37	31	28	25
	Coal	43	45	44	40
<i>Sub-total</i>		<i>80</i>	<i>76</i>	<i>72</i>	<i>65</i>
<b>TOTAL</b>		<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

*Definition of trajectories*

In version 1 of the Mauritius 2050 Pathways Calculator, the four levels for hydroelectric power development are defined as follows:

Level #	Description
<b>Level 1</b>	The existing capacity at 60MW is maintained to 2050.
<b>Level 2</b>	There is a total of 65 MW by 2050.  New hydro power potential will be created through the construction of dams that are already considered by the Government. The 5 MW is linearly between 2020 and 2050 – i.e. 714 kW every 5 years.
<b>Level 3</b>	The target in 2050 is 75 MW.  This is achieved by developing additional mini hydro power potential will be explored. . The 15 MW is added linearly between 2020 and 2050 – i.e. 2.14 MW every 5 years.
<b>Level 4</b>	A total of 100 MW of hydro power capacity is installed in 2050.  5.71 MW hydro capacity is installed every 5 years between 2020 and 2050.

<sup>1</sup> Statistics Mauritius. (2014). *Digest of Energy and Water Statistics 2013*.

<sup>2</sup> This can be compared to the 30 MW of installed hydro capacity at Champagne. It is noted that out of the ten hydro plants, three hydro power plants (Champagne, Tamarin Falls and Ferney) have a total capacity of 51.7 MW, while the remaining seven plants have a cumulative capacity of 9.04 MW. Out of these seven plants, Le Val has the biggest capacity at 4 MW. The other plants are sized between 0.35 MW and 1.2 MW.