

## FACT SHEET

## More than 38,000 Megawatts of Large Hydro Are Planned for the Brazilian Amazon

- More than 38,000 megawatts of large hydroelectric capacity are planned for the Brazilian Amazon between 2012-2021, according to the Brazilian government's most recent power expansion plan (Table 1).<sup>1</sup>
- Brazil's Amazon dam building program is controversial because of its impact on indigenous peoples, forest and riverine ecosystems, and greenhouse gas (GHG) emissions.<sup>2</sup>
- Contrary to claims that dams are clean energy, large dams in the tropics emit significant amounts of methane, a GHG over 20 times more potent than carbon dioxide. Due to ongoing methane emissions from decomposing vegetation in their reservoirs, dams in the tropics act as "methane factories," and GHG emissions from tropical dams can actually exceed those of fossil fuel plants for decades.<sup>3</sup>
- Dams in the Amazon have also been criticized for being expensive, inefficient, and vulnerable to drought.<sup>4</sup>
- Alternatives to large hydroelectric dams in the Amazon include energy efficiency, wind, solar, and biomass.<sup>5</sup>

## Table 1: New Large Hydroelectric Projects Planned for the Brazilian Amazon (2012-2021)

Project Name	MW	Year in Operation	River	Status
Sto Antônio	3,150	2012	Madeira	contracted/under construction
Jirau	3,750	2013	Madeira	contracted/under construction
Sto. Ant. Do Jari	373	2014	Jari	contracted/under construction
Belo Monte	11,233	2015	Xingu	contracted/under construction
Teles Pires	1,820	2015	Teles Pires	contracted/under construction
Colider	300	2015	Teles Pires	contracted/under construction
Ferreira Gomes	252	2015	Araguari	contracted/under construction
São Manoel	700	2017	Teles Pires	studies in final stage
Sinop	400	2017	Teles Pires	studies in final stage
Cachoeira Caldeirão	219	2017	Araguari	studies in final stage
São Luiz do Tapajós	6,133	2018	Tapajós	studies in final stage
Ribeiro Gonçalves	113	2018	Parnaíba	studies in final stage
Jatobá	2,336	2019	Tapajós	studies in final stage
Bem Querer	709	2020	Branco	studies in final stage
São Simão Alto	3,509	2021	Juruena	studies in final stage
Marabá	2,160	2021	Tocantins	studies in final stage
Salto Augusto Baixo	1,461	2021	Juruena	studies in final stage
Total	38,618			

Data: Ministério de Minas e Energia / Empresa de Pesquisa Energética, Power Expansion Plan 2012-2021

**Cite:** InterAmerican Clean Energy Institute, "Fact Sheet: More Than 38,000 Megawatts of Large Hydro Are Planned for the Brazilian Amazon," last modified Aug. 30, 2013, <u>http://www.cleanenergyamericas.org/resource-portal.html</u>.

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<sup>&</sup>lt;sup>1</sup><u>Ministério de Minas e Energia (MME) / Empresa de Pesquisa Energética (EPE) *Power Expansion Plan 2012-2021* (Brasília: 2012). Analysis by <u>International Rivers</u> of government planning documents and inventory assessments indicates that dozens more dams, large and small, are planned for the Amazon.</u>

<sup>&</sup>lt;sup>2</sup> "Brazil's Hydro Dams Could Make its Greenhouse Gas Emissions Soar," Global Post (Jul. 1, 2013); "Protest Over Brazil Hydro Drives Delay and Boosts Cost," Bloomberg News (Jun. 6, 2013); "Power-Hungry Brazil Builds Dams and More Dams, Across the Amazon," The Washington Post (Feb. 9, 2013); "Over A Million People Sign Petition Against Brazil's 'Pandora Dam'," Forbes (Dec. 20, 2011); Amazon Watch, "Brazil's Belo Monte Dam," accessed Aug. 30, 2013, http://amazonwatch.org/work/belo-monte-dam.

<sup>&</sup>lt;sup>3</sup> Philip M. Fearnside & Salvador Pueyo, "Greenhouse-gas Emissions from Tropical Dams," Nature Climate Change 2 (2012).

<sup>&</sup>lt;sup>4</sup> "Brazil's All-In Bet on Amazon Dams Jeopardizes Economic Growth," Bloomberg Markets Magazine (Apr. 10, 2012); "Brazil Drought Stokes Worries Over Energy Shortages," BBC News (Jan. 18, 2013).

<sup>&</sup>lt;sup>5</sup> <u>The Brazilian Electricity Sector and Sustainability in the 21st Century: Opportunities and Challenges / Second Edition</u> (Brasília: Ed. International Rivers, 2012); <u>Beyond Large Dams: Policies for Renewable Electricity in Brazil</u> (Brasília: WWF Brazil, 2012); <u>Energy</u> <u>Revolution Brazil Scenario</u> (São Paulo: Greenpeace / Global Wind Energy Council, 2013).