

# **Powering Past Coal** at the San Juan Generating Station

## A Major Health Threat

- The San Juan Generating Station generates 1,848 megawatts of electricity from four coalfired boilers.<sup>1</sup> The plant is primarily owned and operated by Public Service Company of New Mexico, or PNM.
- Located in northwestern New Mexico, the San Juan Generating Station is in the midst of the Navajo Nation and primarily impacts indigenous communities in the Four Corners region.



San Juan Generating Station in northwestern New Mexico.

- The power plant releases more than 18,000 tons of nitrogen oxide gases, or NOx, as much as more than 940,000 cars.<sup>2</sup> NOx react with sunlight to form smog, are respiratory irritants, and contribute to haze and acid rain  $^3$
- In 2009, the power plant released more than 5,500 tons of sulfur dioxide, which forms acid rain and poses myriad health risks.<sup>4</sup>
- The power plant annually contributes to 33 premature deaths, 600 asthma attacks, 31 asthmarelated emergency room visits, and other health impacts, at an estimated cost of more than \$254,000,000.<sup>5</sup>
- Every year, the power plant releases more than 13,000,000 tons of carbon dioxide, the amount released by 2.3 million passenger vehicles.<sup>6</sup>
- The power plant releases more than 191,495 pounds of other poisons into the air, including 51 pounds of mercury, a potent neurotoxin, 662 pounds of selenium, 35,553 pounds of sulfuric acid, and more than 34,844 pounds of hydrochloric acid.<sup>7</sup>

<sup>&</sup>lt;sup>1</sup> <u>http://www.pnm.com/systems/sj.htm</u>.

<sup>&</sup>lt;sup>2</sup> According to the U.S. Environmental Protection Agency, a car releases 38.2 pounds of NOx http://www.epa.gov/otaq/consumer/f00013.htm. <sup>3</sup> http://www.epa.gov/air/nitrogenoxides/health.html.

<sup>&</sup>lt;sup>4</sup> http://www.epa.gov/airquality/sulfurdioxide/health.html.

<sup>&</sup>lt;sup>5</sup> See San Juan Generating Station data at <u>http://www.catf.us/coal/problems/power\_plants/existing/map.php?state=New\_Mexico.</u>

<sup>&</sup>lt;sup>6</sup> According to U.S. Environmental Protection Agency greenhouse gas converter, <u>http://www.epa.gov/cleanenergy/energy-</u> resources/calculator.html#results.

According to U.S. Environmental Protection Agency's Toxic Release Inventory, http://oaspub.epa.gov/enviro/tris control.tris print?tris id=87421SNJNGCOUNT.

#### A Clean Air Solution?

- The U.S. Environmental Protection Agency has proposed a plan to retrofit the San Juan Generating Station to limit haze-forming air pollution.
- The plan would reduce NOx emissions by more than 90% using state of the art controls.
- Visibility in Mesa Verde National Park, Bandelier National Monument, and other pristine landscapes in the southwest stands to improve by 40%.
- Yet even after retrofitting, the San Juan Generating Station would still be one of New Mexico's largest sources of air pollution.

### Clean Energy Solutions at Hand

- Instead of retrofitting a dirty coal plant, PNM should develop a plan to retire the San Juan Generating Station and offset its electricity with clean, renewable energy.
- A conservative estimate indicates that more than 2,500 megawatts of solar and wind could be developed in the Four Corners region, including the Navajo Nation, more cheaply than coal. The overall renewable energy potential in the Four Corners is far greater.<sup>8</sup>
- As a whole, New Mexico has enough wind and solar energy resources to meet the State's electricity needs by more than seventy-fold.<sup>9</sup>
- A just transition is needed to sustain indigenous communities in the Four Corners region, safeguard public health and welfare, and to truly pave the way to a clean energy future.

#### **For More Information Contact:**

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<sup>&</sup>lt;sup>8</sup> See report on energy and economic alternatives for Desert Rock coal-fired power plant,

http://www.sanjuancitizens.org/air/Jan%202008%20-%20Alternatives%20to%20Desert%20Rock%20Full%20Report-Dine%20CARE.pdf.

<sup>&</sup>lt;sup>9</sup> See report on renewable energy potential in New Mexico, <u>http://www.newrules.org/sites/newrules.org/files/ESRS.pdf</u>.