

## **Amdocs Energy Management White Paper**

The main focus of our environmental policy and commitment is to conserve natural resources by reducing the usage of energy. Amdocs is making great efforts to improve electricity consumption efficiency within our products and services, as well as to reduce energy usage by offering green alternatives and improvements to our employees' transportation methods.

### **Energy savings at our data centers**

Considering that data centers are a major source of emissions for Amdocs, we initiated many projects to reduce energy usage in our data centers around the world:

- Monitoring Power Usage Effectiveness (PUE) to ensure data-center efficiency.
- Frequently monitoring the level of service required to minimize over-provisioning.
- Frequently monitoring the usage of servers to identify and eliminate unused ("comatose") servers.
- Maximizing the deployment of virtual machines to send servers excess of requirements into deep-sleep states.
- Monitoring average CPU utilization or a similar metric to ensure as many servers as possible are operating at their "sweet-spot" of efficiency and service, while minimizing the number of servers with very high or low utilization.
- Annual incentive programs and goals for all data-center managers are based on their personal goal achievements, including energy efficiency projects.

### **Energy efficiency of our products and services:**

During software specification or updating, we review software features to ensure that they are necessary and relevant to most users.

We analyze our code for speed, hardware usage and scalability to ensure energy efficient computation.

Regarding software portability, we assess our products for installability, interoperability, localization, compatibility and adaptability of hardware and software dependencies.

### **Energy savings within our operations:**

Several projects and incentives instituted in the recent past reflect Amdocs' efforts to reduce energy consumption within our operations:

- Decommissioning hardware: reducing our annual CO2 emissions by optimizing equipment and merging data centers.
- Optimizing our facilities: achieving an overall decrease in electricity consumption through initiatives such as replacing chillers, raising AC temperature and replacing conventional light bulbs with LED in several sites.
- Meatless Mondays: joining the Meatless Monday initiative in Israel, which raises awareness of the environmental and health impacts of meat consumption.

### **Energy savings in PC and laptop use**

Amdocs employees operate thousands of PCs and laptops, which consume vast amounts of energy in aggregate. Amdocs is promoting the below energy-saving programs:

- Purchasing energy-efficient computers
- Increasing shut down/ turn off/ sleep mode procedures
- Increasing hibernation time
- Increasing the number of virtual PCs
- Increasing video conferencing meeting rooms and VC sessions
- Collecting and recycling WEEE (Waste Electric & Electronic Equipment)

**We encourage our employees to join us in the effort to reduce Amdocs' energy consumption and carbon footprint by:**

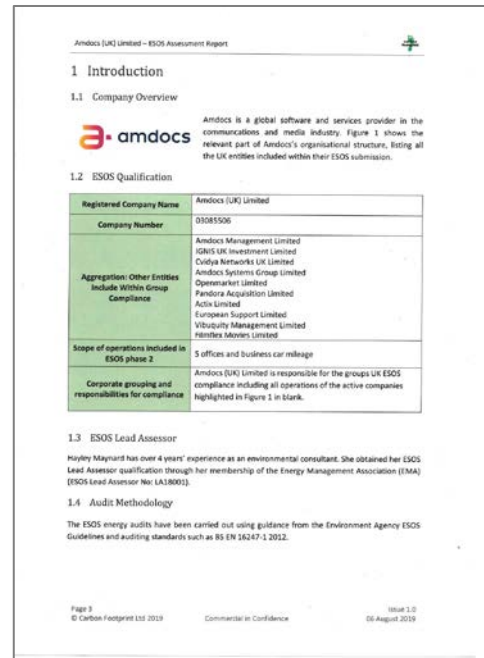
- Awareness activities like following Earth Hour at our sites and encouraging our employees to do the same at their homes.
- Organizing tree-planting activities in several sites to raise awareness of the importance of tree conservation and environmental protection.
- Asking our employees to shut down/hibernate their PCs whenever possible (according to IT instructions).
- Encouraging our employees to use natural light where possible and turn off lights and air-conditioning when leaving the office.
- Printing only when essential.
- Switching to fluorescent bulbs or LED, as they use up to 75% less energy than incandescent bulbs and can last up to 10 times longer.
- Encouraging our employees to use public transport, bicycles or carpooling to commute.
- Replacing air travel with video conferencing (VC) whenever possible.

**Energy surveys, audits and reports:**

Energy surveys and reporting are on the rise in regulatory compliance requirements in certain countries in the world, even for office buildings.

We started conducting energy surveys and audits in Israel, the UK, Ireland, Hungary and Cyprus. Several reports are also submitted to the local environmental authorities and third-party audits to assure compliance. In addition, Amdocs maintains close communications with local authorities regarding energy consumption issues.

In 2017, Amdocs was penalized for not submitting on time, due to technical issues, the ESOS (Energy Savings Opportunity Scheme) in the UK. We submitted a full ESOS Assessment shortly afterward and paid a fine of £45,000. In the wake of this, we conducted a "lesson-learned" process, resulting in substantial improvements in energy management and reporting practices. Today, we are in full compliance with all energy reporting regulations worldwide.



### Employee commuting and business travel:

Amdocs has undertaken two main projects, (along with a continued effort to reduce GHG emissions and increase energy efficiency):

- Gradually changing our approach to employee commuting options. In 2018, there was a decision to promote alternative transportation solutions such as carpooling, shuttles to-and-from stations, optimization of bus lines in India and setting up the infrastructure to enable employees to ride bicycles to work (parking spaces, compressors, chargers and showers). In addition, Amdocs has established a goal to have at least 42% of its car fleet consist of energy efficient cars (hybrids and/or diesel).
- Establishing our "Travel Wise" program in 2018 to reduce business travel by all business units, worldwide. The program is monitored by Amdocs' Chief Operating and Chief Financial Officer and encourages managers and employees to install and use advanced IT solutions such as VCs and Skype meetings to minimize travel.

### Transparency:

Amdocs sees great value in making EHS goals and activities transparent to all stakeholders and employees. To make this a tangible reality, we introduced an EHS portal on our intranet where employees can access information related to GHG measurements. Furthermore, employees have a platform to offer suggestions to reduce emissions and contribute to our environmental sustainability.

Externally, Amdocs has been reporting to the Carbon Disclosure Project since 2010 and we are proud to share that our score in the 2019 report was a 'B'! We believe that by reporting to CDP, we can provide our main stakeholders with a transparent overview of our environmental activities, strategy, risks and opportunities, as well as measure and improve our carbon management performance.

Amdocs committed to the Science Based Target initiative in 2018 and are now in the process of validating our long-term targets. We have set the following targets in line with the level of decarbonization required to keep global temperatures from increasing over 2 degrees Celsius:

- *Amdocs commits to reducing absolute scope 1 and 2 GHG emissions by 21% by 2024, compared to the 2019 base year.*
- *Amdocs commits to reducing absolute scope 3 GHG emissions by 13% by 2024, compared to the 2019 base year.*