



# Template for Evidence(s) UI GreenMetric Questionnaire

University: IFSULDEMINAS

Country : BRAZIL

Web Address : https://www.ifsuldeminas.edu.br/index.php

## [2] Energy and Climate Change (EC)

Figure 3: Rectory LED tubular lights.

## [2.1] Energy Efficient Appliances Usage



Figure 4: Campus Carmo de Minas efficient refrigerator.





Figure 5: Campus Carmo de Minas efficient ventilator.

Figure 6: Campus Carmo de Minas efficient air conditioning.



Figure 7: Rectory efficient air conditioning.



Figure 8: Campus Poços de Caldas Energy Efficiency and Renewable Energy laboratory (LEFEER).



Figure 9: Campus Inconfidentes previous lighting compared to new LED lighting.



Figure 10: Campus Inconfidentes replacing the lighting in the main building.



Figure 11: IFSULDEMINAS and DME celebrate results of the first phase of the "IF Solares" Project.



Figure 12: Campus Poços de Caldas Photovoltaic Systems Installer course in Initial and Continuing Education (FIC).



Figure 13: IFSULDEMINAS is selected in public call with solar power project.



Figure 14: IFSULDEMINAS renewable energy bidding expertise.



Figure 15: Campus Muzambinho replacement of lighting for conventional lamps by LED lamps.



Figure 16: Campus Muzambinho new LED lamps.





Figure 17: Campus Muzambinho energetic diagnosis.

Figure 18: Rectory new photovoltaic plates to be installed.





Figure 19: Inconfidentes Campus natural lighting with pet bottles filled with water.

Figure 20: Poços de Caldas Campus <u>Technical Specialist</u> <u>Course in Photovoltaic Solar Energy</u>.

#### Description

## Figure 10: Campus Inconfidentes replacing the lighting in the main building

Saving energy and contributing to environmental sustainability and energy efficiency is the objective of the work at the Inconfidentes Campus, which provides for the replacement of fluorescent lamps for LED lighting. Available at: <a href="https://portal.ifs.ifsuldeminas.edu.br/index.php/component/content/article?id=338">https://portal.ifs.ifsuldeminas.edu.br/index.php/component/content/article?id=338</a>.

#### Figure 11: IFSULDEMINAS and DME celebrate results of the first phase of the "IF Solares" Project

IFSULDEMINAS and Municipal Department of Electricity - DME Poços de Caldas officials celebrated the results already obtained with the actions of the first year of the Energy Efficiency (PEE) and Research and Development (R&D) Programs developed by the "IF Solares" project. Recognized with more than US\$ 250 thousand in resources by the National Electric Energy Agency (ANEEL), the project "IF Solares" has already completed its first phase, which involved the Energy Efficiency (PEE) actions.

In this phase, the pole reflectors and fluorescent lamps of the IFSULDEMINAS - Campus Poços de Caldas buildings were replaced by another 300 LED lamps, which are more economical and less harmful to the environment. A new photovoltaic plant was also installed on the roof of the Campus library, which started to work in conjunction with the one previously installed through the "IF Solar" project. Twelve energy meters were also placed throughout the campus, making it possible to monitor the energy consumption of each institution building. Available at: https://portal.pcs.ifsuldeminas.edu.br/noticias/2249.

#### Figure 12: Photovoltaic Systems Installer course in Initial and Continuing Education (FIC)

IFSULDEMINAS Campus Poços de Caldas, through the IFSOLARES Project Coordinator in partnership with the Institutional Center for Research and Extension (NIPE) opened the Photovoltaic Systems Installer course in Initial and Continuing Education (FIC).

The course aims to train professionals to size, supervise, specify, install, operate and maintain photovoltaic systems in accordance with technical standards and technical and regulatory procedures, ensuring quality and safety of installation of photovoltaic systems with the best use of converting solar irradiation into electricity, respecting the environment. Available at: <a href="https://portal.pcs.ifsuldeminas.edu.br/noticias/2024">https://portal.pcs.ifsuldeminas.edu.br/noticias/2024</a>.

## Figure 13: IFSULDEMINAS is selected in public call with solar power project

IFSULDEMINAS was one of the chosen in the public call Good Practices of the Environmental Public Administration Agenda (A3P), held by the Ministry of Environment and the UN Environment. The IF Solar project, developed by the institution, was selected in the category "Rational use of energy and energy efficiency", along with 19 other initiatives. In total, 297 projects were registered, of which 125 were classified. Available at: <a href="http://www.energif.org/noticias-joomla/index.php/2-uncategorised/78-instituto-federal-do-sul-de-minas-e-selectionado-em-chamada-publica-com-projeto-de-geracao-de-energia-solar.">http://www.energif.org/noticias-joomla/index.php/2-uncategorised/78-instituto-federal-do-sul-de-minas-e-selectionado-em-chamada-publica-com-projeto-de-geracao-de-energia-solar.</a>

## Figure 14: IFSULDEMINAS Renewable Energy Bidding Expertise

IFSULDEMINAS has again structured a bidding process, at the request of the Ministry of Education, of Price Registration for hiring a company specialized in sustainable energy production technology, based on photovoltaic plates.

Available at: <a href="http://www.energif.org/noticias-joomla/index.php/noticias/85-expertise-em-licitacao-de-energias-renovaveis">http://www.energif.org/noticias-joomla/index.php/noticias/85-expertise-em-licitacao-de-energias-renovaveis</a>.

#### Figures 15 and 16: Muzambinho Campus Energy Efficiency Project Proposal

Muzambinho Campus has its project "Efficientization System of the Installations of the Federal Institute of Sul de Minas" approved by CEMIG Public Call 001/2019, to to replace the campus lighting, with a budget of US\$ 161,163.17.

Available at: <a href="http://www.cemig.com.br/eficienciaenergetica/Documents/CPP2019/Resultado%20Avalia%C3%A7%C3%A3o%20Diagn%C3%B3stico%20Energ%C3%A9tico">http://www.cemig.com.br/eficienciaenergetica/Documents/CPP2019/Resultado%20Avalia%C3%A7%C3%A3o%20Diagn%C3%B3stico%20Energ%C3%A9tico</a> R0.pdf.

#### Figure 17: Muzambinho Campus Planning Sustainable Actions

IFSULDEMINAS Muzambinho Campus revealed to the community its planning of sustainable actions due to energy savings and environmental maintenance, which will result in almost one million reais in annual savings. The data were cited during the online event "Sustainable energy at the Muzambinho Campus: reports, challenges and opportunities". Available at: <a href="https://www.muz.ifsuldeminas.edu.br/noticias/2988-campus-planeja-economia-de-quase-1-milhao-de-reais-com-iniciativas-sustentaveis">https://www.muz.ifsuldeminas.edu.br/noticias/2988-campus-planeja-economia-de-quase-1-milhao-de-reais-com-iniciativas-sustentaveis.</a>

## Figure 18: IFSULDEMINAS expands project for photovoltaic plants to generate solar energy

Federal network participants will save more than US\$ 350 million. Another 43 modules of photovoltaic plants, destined to the generation of solar energy, will be implemented at IFSULDEMINAS, with the capacity to generate savings of more than US\$ 190 thousand per year. Available at: https://portal.ifsuldeminas.edu.br/index.php/institucional-geral/3355-profept-2020-video.